THE BULLETIN OF ZOOLOGICAL NOMENCLATURE

The Official Overse of

THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the International Commission on Zoological Nomenclature.

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VOLUME 3

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THANKS TO U.N.E.S.C.O.

The International Trust for Zoological Nomenclature on behalf of the International Commission on Zoological Nomenclature have great pleasure

in

expressing their grateful thanks

to the

UNITED NATIONS EDUCATIONAL SCIENTIFIC AND CULTURAL ORGANISATION

— U.N.E.S.C.O. —

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E. The addresses of the Commission and the Trust

Secretariat of the Commission: 28 Park Village East, Regent's Park, London, N.W.1, England.

Offices of the Trust: 41 Queen's Gate, London, S.W.7, England.

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MEMORANDA AND OTHER DOCUMENTS CONSIDERED BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE AND BY THE SECTION ON NOMENCLATURE DURING THE THIRTEENTH INTERNATIONAL CONGRESS OF ZOOLOGY, PARIS, JULY 1948

Note by the President of the Section on Nomenclature, Thirteenth International Congress of Zoology, Paris, July 1948

At their final Plenary Session held on Tuesday, 27th July 1948, the Thirteenth International Congress of Zoology approved a proposal submitted by the Section on Nomenclature, on the recommendation of the International Commission on Zoological Nomenclature, that the International Trust for Zoological Nomenclature should be requested, *inter alia*, to publish in the "Bulletin of Zoological Nomenclature" the memoranda and other documents which had been considered by the Commission and the Section on Nomenclature during the Congress.

- 2. Immediately after the close of the Congress, the foregoing request was submitted to the International Trust who decided to reserve the present volume (volume 3) for this purpose.
- 3. The memoranda and other documents now published formed the basis for a large part of the discussions which took place both in the meetings of the Commission and in those of the Section on Nomenclature. They form therefore an essential part of the documentation of the work performed in Paris both by the Commission and by the Section on Nomenclature and constant reference to them is made in the Official Record of the Proceedings both of the Commission and the Section (shortly to be published in volumes 4 and 5 respectively of the present journal).
- 4. In the course of discussion the proposals recorded in the present volume were in many cases modified or expanded in various directions, while some were rejected. It is important therefore to realise that the documents published in the present volume contain a record only of the proposals submitted to the Commission and the Congress. They do not contain a record of the conclusions reached by the Commission or of the decisions taken by the Congress. Every decision that was ultimately so taken by the Congress was taken on the joint recommendation of the Commission and of the Section on Nomenclature. A detailed record of every such decision is given in the Official Record of the Proceedings of the Commission, to which therefore reference should be made by zoologists anxious to ascertain the terms of any of the decisions in question. The Official Record of the Proceedings of the Section on Nomenclature contains a full record of the action taken by the Section on recommendations submitted by the Commission. It will be seen that where in any given case the Section on Nomenclature indicated its desire that a particular recommendation should be modified, the matter was referred back to the Commission. Agreement was reached in every case, and in consequence the final conclusion reached by the Commission (as recorded in its Official Proceedings) represents the proposal agreed upon with the Section (as recorded in its Official Proceedings) and subsequently unanimously approved by the Congress in Plenary Session.

FRANCIS HEMMING

President, Section on Nomenclature, Thirteenth International Congress of Zoology, Paris, July 1948

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PART I.

MEMORANDA AND REPORTS

SUBMITTED TO THE

INTERNATIONAL COMMISSION

ON

ZOOLOGICAL NOMENCLATURE

BY THE

SECRETARY TO THE COMMISSION

AT THE SESSION OF MEETINGS

HELD BY THE

INTERNATIONAL COMMISSION

DURING THE

THIRTEENTH INTERNATIONAL CONGRESS

OF ZOOLOGY

PARIS, JULY 1948



INTERNATIONAL COMMISSION on ZOOLOGICAL NOMENCLATURE

PAPER I.C.(48)1

AGENDA FOR THE MEETING TO BE HELD IN PARIS IN JULY, 1948

Memorandum by the Secretary to the Commission

In view of the fact that there has been no meeting of the International Commission on Zoological Nomenclature since that held at Lisbon in 1935, the Commission will be confronted with an exceptionally heavy agenda when it assembles next month in Paris during the meeting of the Thirteenth International Congress of Zoology. It is particularly important therefore that during the Paris meeting the Commission should so organise its work as to enable it to discharge the maximum amount of work in the limited time available.

- 2. The principal matters which will be brought before the Commission during its Paris meeting are as follow:—
 - (1) The work of the International Commission during the period 1936–48, with special reference to the administrative and financial problems of the Commission.

A Report on the work of the Commission during the period 1936-48 will be submitted to the Commission by the Secretary as Paper I.C.(48)2.

This Report will describe the transfer of the headquarters of the Commission to London in 1936 consequent upon the election of the present Secretary and the administrative and financial problems which that transfer inevitably involved. It will give an account also of the measures taken by the Secretary to secure continuity during the difficult war years and the developments which it was possible to achieve during that period. The Report will also give an account of the formation since the war of a corporation under United Kingdom Law for the purpose of conducting the financial and business affairs of the Commission, the Commission itself, as an unincorporated body, not being in a position directly to undertake these duties.

It is suggested that the Commission, when making their Report to the Congress, should attach to it the Report by the Secretary, while themselves drawing the attention of the Congress to those points in the Secretary's Report which they consider to be of special interest or importance. This procedure will, it is hoped, enadle the Commission to deal with this matter adequately, while

at the same time avoiding the necessity of devoting too much time to this subject, in view of the many other urgent matters requiring consideration.

(2) Composition of the International Commission on Zoological Nomenclature and method of nominating members.

There is clear evidence of a general feeling among zoologists that the present fixed membership of the Commission which necessarily excludes many countries from direct representation on the Commission is unsatisfactory and should be amended. It is clear also that, in view of the growing importance of the work of the Commission, there is a general desire among zoologists that the leading scientific institutions of the countries concerned should be brought into consultation whenever it is necessary to fill a vacancy in the membership of the Commission.

This question has been carefully considered by the Executive Committee of the Commission and their proposals will be submitted in Paper I.C.(48)3.

(3) Procedure of the International Commission on Zoological Nomenclature.

The most serious—because the most merited—of the criticisms which have in the past been levelled against the International Commission have been (a) that the period taken in obtaining decisions on questions of nomenclature has often been much too long (amounting in some cases to 20 years) and (b) that the Liberum Veto imposed by the Commission on itself, when dealing with certain classes of case, has obstructed the work of the Commission by making it impossible to secure any decision, where even a single member of the Commission dissented from the action proposed.

At the present time the Commission has before it a larger number of applications than at any previous period in its history and it is certain that it will be impossible to deal with these promptly unless a thoroughgoing reform is introduced into the procedure of the Commission. It is perfectly clear also that the whole position of the Commission will be impaired in the eyes of zoologists generally, unless it takes effective steps to enable it to clear off existing arrears of work and in future to give decisions quickly.

This question has been the subject of discussion between the members of the Executive Committee and also between the Secretary and leading zoological institutions and individual specialists. Proposals for dealing with this problem will be submitted in Paper I.C.(43)4.

(4) Meaning of the expression "nomenclature binaire" as used in the "Règles Internationales": Special Report to be submitted to the Thirteenth International Congress of Zoology.

The International Commission were instructed by the Twelfth International Congress of Zoology at its final Concilium Plenum held in Lisbon in September, 1935, to prepare a Report on the meaning of the expression "nomenclature binaire" as used in the Règles for submission to the Thirteenth International Congress.

Numerous discussions on this question have been held with specialists, with a view to ascertaining what course of action would

be the most generally acceptable.

A draft Report embodying the conclusions reached as the result of these discussions will be submitted as Paper I.C.(48)5, for the consideration of the Commission.

(5) "Règles Internationales de la Nomenclature Zoologique": proposals for consolidation and amendment.

Proposals will be laid before the Commission:-

to codify the interpretations of the Règles given at various times in Opinions rendered by the International Commission by the insertion in the Règles of express provisions dealing with the problems involved;

b) to eliminate doubts as to the meaning of certain of the provisions of the *Règles* by redrafting those provisions in

unambiguous terms;

(c) to insert in the Règles provisions relating both (i) to certain matters on which resolutions have already been adopted by the Congress but which have not been incorporated in the Règles, and (ii) to certain other matters as regards which there are no provisions in the Règles and no decisions have as yet been taken by the Congress:

(d) to remove inconsistencies from the phraseology used in

the Règles.

It is recognised that neither the Commission nor the Congress can hope to do more than record decisions in regard to many of the questions which will fall to be dealt with under the foregoing programme, and that other arrangements will need to be made for the formulation of the texts to be inserted in the substantive French text of the Règles. It is proposed that the highly technical task of formulating these drafts should be remitted to jurists. It is further proposed that the Commission should recommend the Congress to follow the precedent set by the Fifth International Congress of Zoology (Berlin, 1901), that is to say that the Congress should be invited to appoint a small Comité de Rédaction charged with the duty of examining the texts proposed by the jurists and of satisfying itself that these texts give effect to the decisions taken by the Congress. This Committee would be instructed to act with all possible dispatch, in order that the Commission may be able

to publish, as soon as possible after the close of the Congress, an edition of the Règles as revised at Paris, containing both the substantive French text and an English translation thereof.

A paper setting out the foregoing proposals in greater detail

is being circulated as Paper I.C.(48)6.

Applications submitted to the Commission in regard to individual

problems of zoological nomenclature.

A large number of applications in regard to individual problems of nomenclature are at present before the Commission and the texts of a considerable number of these have been published in the Bulletin of Zoological Nomenclature.

It is proposed that, so far as time permits, the Commission should consider these cases and reach at least provisional decisions

(7)Report to be submitted by the International Commission on Zoological Nomenclature to the Thirteenth International Congress of Zoology, Paris. 1948.

At the close of its deliberations, the International Commission will have to submit a Report to the Congress to be considered, first by the Section on Nomenclature, and later by the Congress itself in Concilium Plenum. This Report will need to deal with all the principal matters considered by the Commission during its Paris meeting and in particular will need to set out the proposals which the Commission may decide to submit, for adoption, to the Section on Nomenclature and to the Congress. In addition, as already explained under (1) above, the Report will need to refer briefly to the principal developments which occurred in the work of the Commission between the end of the Lisbon Congress in 1935 and the opening of the present Congress.

The draft of this Report will be prepared during the Paris meeting and will be submitted to the Commission for approval at

its final meeting.

3. Note on documents to be brought by Commissioners to Paris.—The files of the Commission and other papers which it will be necessary for the Secretary to the Commission to take to Paris will inevitably be bulky and heavy. It will therefore not be possible to supply members of the Commission with additional copies of documents after their arrival in Paris. Members of the Commission are, therefore, particularly requested to ensure that they bring with them to Paris both this and other memoranda relating to the Paris meeting circulated by the Secretariat of the Commission and also the copies which have already been furnished to them both of the Bulletin of Zoological Nomenclature and of the Opinions and Declarations rendered by the International Commission.

FRANCIS HEMMING,

Secretary to the International Commission on Zoological Nomenclature.

Secretariat of the Commission, London, England. 26th June, 1948.

INTERNATIONAL COMMISSION on ZOOLOGICAL NOMENCLATURE PAPER I.C.(48)2

REPORT BY FRANCIS HEMMING, C.M.G., C.B.E., SECRETARY TO THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE, ON THE WORK OF THE SECRETARIAT OF THE COMMISSION DURING THE PERIOD 1936-1948

I submit herewith for the information of the Commission the accompanying Report which I have prepared on the work of the Secretariat of the Commission from the time when in October, 1936 I was elected to be the Secretary to the Commission up to the opening of the present Congress in July. 1948.

FRANCIS HEMMING,

Secretary to the International Commission on Zoological Nomenclature.

Secretariat of the Commission, London, England. 15th July, 1948.

EDITORIAL NOTE.—In accordance with a decision taken by the International Commission on Zoological Nomenclature, the report referred to above was submitted to the International Congress of Zoology. The text of this Report will be published in Volume 5 of the present journal, the volume reserved for the record of the proceedings of the Section of Nomenclature of the Congress and the Reports on Nomenclature submitted to the Congress.

PAPER I.C.(48)3

THE COMPOSITION OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE AND THE METHOD OF NOMINATING ITS MEMBERS

Memorandum by the Secretary to the Commission

I. Introductory

The Executive Committee of the International Commission on Zoological Nomenclature have had under consideration the question of the size and composition of the International Commission and the method followed in nominating its members. As the result of this review, the Executive Committee are of the opinion that a stage has been reached at which it is essential that the underlying principles should be re-examined and that certain changes should be introduced in order to bring those principles into harmony with modern conditions. In the opinion of the Executive Committee, such changes alone will enable the International Commission to vindicate its claim to be a body both genuinely international in character and truly representative of zoologists and palæontologists in all parts of the world.

- 2. The size and composition of a body and the method by which its members are appointed necessarily exercise a considerable influence over the procedure appropriate for the discharge by that body of the functions entrusted to it. The International Commission is no exception to this general rule and the Executive Committee recognise therefore that their proposals for the reform of the composition of the Commission and the introduction of the representative principle in the nomination of its members will inevitably involve certain changes in the procedure of the Commission in dealing with matters relating to zoological nomenclature brought before it for consideration or for decision. In addition to consequential changes of this kind, there are other changes which it is essential should be introduced into the procedure of the Commission if it is to be put into a position in which it will be able promptly and effectively to handle the large and growing volume of business passing through its hands.
- 3. For purposes of convenience, the proposals of the Executive Committee in regard to the composition of the Commission and the method of nominating its members are set out in the present paper, while the Committee's proposals in regard to the reform of the procedure of the Commission are set out in another paper (Paper I.C.(48)4). The Executive Committee desire, however, to emphasise their view that the two sets of recommendations are complementary

in character and that the acceptance of the recommendations set out in the present paper will necessarily imply a willingness to amend the procedure of the Commission on the lines suggested in Paper I.C.(48)4, for, quite apart from the fact that, as experience has shown, the present rules of procedure are inadequate to support even the present organisation, those rules would be entirely inappropriate, if the composition of the Commission and the method of nominating its members were to be reformed in the manner recommended by the Executive Committee in the present paper.

II. Historical Sketch

- 4. In order properly to appreciate the nature of the proposals now submitted by the Executive Committee, it is necessary to trace briefly the development during the last 50 years of the ideas of the Commission (and the Congress) in regard to such questions as the proper size of the Commission, the nature of its composition and the methods to be followed in the nomination and election of its members. A brief survey of the history of these ideas is therefore given in the following paragraphs.
- 5. The International Commission on Zoological Nomenclature was established by the Third International Congress of Zoology at its meeting held at Leiden in 1895. It was not then the intention of the Congress that the Commission should be a permanent body, the object in view being only to set up a body which would discharge a limited task in the interval between that Congress and the Fourth Congress which was due to meet at Cambridge (England) in 1898. The task entrusted to the ad hoc Commission appointed at Leiden was to review all the codes of nomenclature (unofficial as well as official) at that time in use by zoologists and to submit to the next Congress recommendations for the adoption of a definitive international set of Règles. Commission so set up consisted of five zoologists, all members of the Leiden Congress and each a national of a different country. With a body consisting of so small a membership, it would clearly have been impossible to make it representative of the zoologists of all the countries in which active zoological work was being carried on. All that was possible—and clearly all that was attempted-was to secure that the zoologists selected to be members of the Commission should be men who by reason of their personal attainments would be accepted by the general zoological public as being qualified to perform the functions then entrusted to them.
- 6. The Fourth International Congress of Zoology held at Cambridge in 1898 was of particular importance from the present point of view, for the decisions then taken involved the tacit acceptance of principles which for nearly 40 years were to govern the attitude both of the Commission and of the Congress. In the first place the Cambridge Congress decided that the Commission should thenceforward be a permanent organ of the Congress charged with the duty, on behalf of the Congress, of centralising, discussing and elaborating all questions relative to zoological nomenclature. As part of this decision the Congress decided to increase the membership of the Commission from 5 to 15 members. What is significant from the present point of view is that the Congress instructed the original Commission of five members forthwith to elect the ten new members from among the zoologists present at the Congress.

This decision naturally limited the choice of the Commission who were unable to elect any zoologist who was not a member of the Congress even if on this account they were forced (as in one or two cases they were) to elect men of far less eminence than they could have secured if they had been able to draw upon the whole field of zoologists engaged in active work at that time. Second, the decision to limit the membership of the Commission to zoologists who were actually present at Cambridge greatly narrowed the field of choice as regards the countries to be represented on the Commission. An inspection of the list of zoologists who were elected to be members of the Commission at that meeting shows that very little importance was attached to the principle of geographical representation, for, on the completion of the election, five countries monopolised between them all except 3 of the 15 seats on the Commission. These countries were Germany and the United Kingdom with three seats each, and France, the Netherlands, and the United States with two seats each. The total number of countries represented on the Commission had thus grown only from five to eight, notwithstanding the fact that there had been a threefold increase in the total membership.

- 7. Nothing of importance from the present point of view occurred at the Fifth Meeting of the Congress held at Berlin in 1901, but at the Sixth Meeting held at Berne in 1904 the decisions taken at Cambridge in regard to the method of appointing members of the Commission were carried to their logical conclusion when the Congress decided that the membership of the Commission should be divided into three Classes and that at each subsequent meeting of the Congress the Class with the longest term of completed service should be superseded by a fresh Class to be filled directly by election by the Congress. From this time onwards the accepted view was that it was the Congress which was directly responsible for the selection of zoologists to be members of the Commission. It naturally followed from this that, when the Congress desired to elect new Commissioners (as happened when any Commissioner did not offer himself for re-election or when there were vacancies in the membership of the Commission due to deaths or resignations in the preceding inter-Congress period) they invariably restricted their choice to zoologists who were present at the Congress. From the practical point of view there were conveniences attaching to this course, for it rendered possible preliminary informal soundings to ascertain whether zoologists whom it was proposed to put forward for election to the Commission were in fact willing to serve, if invited to do so. On the other hand, by this decision the Berne Congress made it clear that their intention was that the membership of the Commission should be drawn exclusively from the membership of the Congress rather than from the general body of zoologists, irrespective of their attendance at the particular meeting of the Congress or even of whether they had enrolled themselves as members of that Congress.
- 8. The interval between the Graz Congress (1910) and the Monaco Congress (1913) was one of great activity by the Commission, an exceptionally large number of *Opinions* being rendered during that period. Nearly 20 years had by now elapsed since the Commission had been first appointed and it was only natural therefore that in the three years between the Graz and Monaco

Congresses there should be losses in the membership of the Commission through deaths and resignations. The Commission were most anxious that their work should suffer no interruption through lack of members, an important consideration for a body which had imposed upon itself a rule that every decision taken, if not unanimous, should be a decision taken not only by a majority of those voting but by an absolute majority of the total membership, i.e. that every decision should be supported by not less than eight affirmative votes. The problem created by the reduction in the total membership through casual vacancies was considered by the Commission in 1911, when already within 12 months of the close of the Graz Congress there were two vacancies in the Commission. To meet this situation, the Commission then decided to assume the power to fill the vacancies which had occurred and to fill any others which might occur before the next meeting of the Congress, subject to elections so made being reported to the next meeting of the Congress. This decision was duly reported in 1913 to the Ninth Meeting of the Congress at Monaco, by whom it was approved. Thereafter, with the approval of the Congress, the Commission regularly filled vacancies in their number as they arose.

- 9. The importance from the present point of view of the foregoing change in procedure is that, consequent upon it, the Commission was given the right and the duty of electing zoologists to its membership, except in the cases of vacancies which arose from the completion of the term of service of one of the Classes at each meeting of the Congress, when the resulting vacancies were filled by the Congress and not by the Commission. In practice, however, the distinction became rather a fine one, for at each Congress the majority elected to the new Class then established were retiring Commissioners who availed themselves of the right to offer themselves for immediate re-election, while in the minority of cases where a new appointment had to be made, it was the Commission itself who submitted the nomination to the Congress. It may therefore be concluded that from 1911 onwards the Commission virtually acquired the right to fill all vacancies in its membership, subject only to the retention by the Congress of the right to exercise a periodical review of the action taken in this matter by the Commission.
- 10. This development was open to the serious disadvantage that always arises when a body with a limited membership acquires the right itself to fill vacancies in its ranks, for however carefully and conscientiously the task of selecting new members is performed, it is not good for any organisation to be immune from the wholesome influence which new members selected by some outside authority can bring to bear upon its deliberations. Moreover, any organisation must lose part of its moral authority if its membership cannot be effectively called in question by the general electorate to which it is nominally responsible.
- 11. The proceedings of the Commission at its Monaco meeting are of interest as illustrating the ideas then held by the Commission regarding the principles to be followed in the selection of new members, for at this Congress the Commission, in asking for an increase in its membership from 15 to 18 (the present number), advanced, as their chief reason for this request, the argument that the time was propitious for co-operative work in the field of entomological

nomenclature and that it was therefore desired to add two entomologists to the membership of the Commission. Two conclusions may be drawn from the action taken by the Commission in this matter: first that there was still no general recognition of the need to make the Commission representative in the sense that its membership should reflect at least roughly the volume of zoological work then being carried on in different parts of the world; second, that it marked the definite acceptance of the principle never previously stated in public by the Commission that each of the principal fields of zoological work should be represented in the Commission in the person of some leading specialist.

12. For nearly 20 years no further formal changes were made in the principles followed in the election of new members of the Commission. Commission continued as before to fill vacancies as they occurred and the action so taken was reported to, and approved by, each successive meeting of the Congress. It must not be supposed, however, that the attitude of the Commission towards its own membership underwent no change during this period. The fact that, owing to the 1914-18 war and the subsequent confusion in the countries of Europe, only one meeting of the Congress was held between the close of the Monaco meeting in 1913 and the opening of the Padua Congress in 1930, inevitably diminished the part played by the Congress in the election of members of the Commission. The steady stream of elections to the Commission (consequent upon the death or retirement of members) which occurred throughout the inter-war period and which were almost all conducted by the Commission and not by the Congress inevitably reduced the importance attached in the selection of candidates, to the qualification universally accepted before the 1914-18 war that candidates should be selected from among the members of the Congress. Thus, by accident, the field of selection was greatly enlarged and it was possible therefore for the Commission, in making elections, to choose the best-qualified candidates that they could find. From a theoretical standpoint this development was entirely in the right direction, but in practice its value was largely dissipated by the fact that a body which seldom was able to meet and which therefore had to conduct most of its business by correspondence was not well-qualified to select the most suitable candidate in every case. In making their selection of candidates, they were bound to rely mainly upon the published record of the zoologists concerned and, while this method secured the election of men with high records of achievement, it did not always succeed also in providing Commissioners possessed of capacity for business or the qualifications needed for effective participation in a joint undertaking, where it is necessary at times to subordinate personal preferences for the general good.

13. No doubt also during this period the Commission had become more sensible of the need for securing that its membership should reflect the geographical dispersion of zoological work as well as the differences in the outlook and needs of specialists in the principal divisions of the Animal Kingdom. For at Padua the Commission included in their Report to the Congress a passage on this subject. In this passage the Commission expressly recognised the need for securing an "equitable geographic distribution" of seats in the

Commission as well as the "representation of specialities." The view so expressed was endorsed both by the Section on Nomenclature and by the Congress itself at its Final Concilium Plenum. The acceptance of this principle was of the greatest importance as marking the final abandonment of the original conception of the Commission as a body of recognised specialists chosen for their personal qualifications and without regard to nationality.

- 14. The outbreak of war in Europe in 1939 brought with it new problems for the International Commission. Fortunately, the accident of nationality and the course of the war were such that throughout the war all the officers of the Commission were able to communicate freely with one another by post. The Executive Committee was thus able throughout the war to discharge without interruption the functions entrusted to it. Fortunately, also, it was possible for myself, as Secretary to the Commission, at all times to communicate with a majority of the members of the Commission. It was possible in this way to take all necessary steps to maintain intact the fabric of the Commission, even though it was judged better to postpone decisions on all matters of zoological nomenclature until, after the conclusion of hostilities, it would, as it was hoped, be possible freely to resume communications not only between all the members of the Commission but also generally between zoologists in all parts of the world.
- 15. Although, as explained above, communication was maintained throughout the war between all the members of the Executive Committee and between the Secretary to the Commission and a majority of the members of the Commission, the period required to conduct correspondence under war conditions, including the inevitable delays involved by censorship regulations, coupled with the high risk (during parts of the war) that trans-ocean mail might be lost by submarine action, made it necessary to confine consultations to essential questions and to delegate as many duties of other kinds as possible to the Executive Committee. This necessity was recognised by the members of the Commission who constituted the accessible majority of the total membership, these members agreeing to confer upon the Executive Committee for the duration of the war responsibility for all matters concerned with the maintenance of the existence of the Commission, other than a limited number of matters on which the members of the Executive Committee and the other members of the Commission were agreed that prior consultation was essential, however great the difficulties involved or however long the resultant delays.
- 16. Already before the outbreak of the war there was one vacancy in the membership of the Commission and it was not long before further deaths deprived the Commission of three more of its members. Clearly, if wastage was to be allowed to proceed unchecked by fresh recruitment, there was a serious risk that, if the war were to continue for a long time, the Commission would emerge so greatly depleted in numbers that it would be greatly handicapped in its efforts to re-establish international co-operation in zoological nomenclature whenever the war came to an end. In view of its great importance, this subject was referred during the war to the whole of the membership of the Commission with which communication was still possible.

Fortunately, as already explained, that part of the membership constituted a majority of the total membership, so that decisions taken unanimously by this portion of the Commission possessed an absolute binding force, for even if all the other members of the Commission had been able to vote and had voted in the opposite sense, those members of the Commission would have been in a minority. On this particular matter two decisions were taken as the result of the general consultation then undertaken, of which the first was concerned with machinery, while the second recognised and affirmed a new principle of the greatest importance and one which forms the foundation of the proposals now about to be placed before the Commission by the Executive Committee (see paragraph 21, below).

17. In place of the previous system by which the members of the Commission themselves had suggested the names of possible candidates, it was now agreed that in future the process of electing new members of the Commission should be divided into two parts. Henceforward the members of the Commission would be concerned to decide not the candidate to be elected but the country from which a suitable candidate should be nominated. The actual process of selection should, it was agreed, be undertaken not by the Commission itself but on behalf of the Commission by the National Academy of Science or other leading scientific institution or institutions in the country from which it was desired to secure a candidate. It was further agreed that it should be left to the Executive Committee, acting through the Secretary to the Commission, to undertake the necessary consultations with the national scientific bodies concerned. The Executive Committee were authorised also formally to accept such nominations on behalf of the Commission. All the elections made to the membership of the Commission have since been conducted under the foregoing procedure.

III. The Recommendations of the Executive Committee

- 18. The Executive Committee are firmly convinced that the introduction during the war of the principle that it is the function of the zoologists of any country themselves to take part, through their leading scientific institutions, in the nomination of the zoologist who is to represent them on the International Commission constitutes the most important single development which has occurred in this field since the inception of the Commission. By this decision the Commission has freed itself of the reproach that it was largely a self-continuing body and has shown its determination to secure for itself a genuinely representative character.
- 19. Now that the membership of the Commission has been placed on a representative basis, there remain two directions in which further reforms are required. The first is concerned to secure that the membership of the Commission, while containing an adequate representation of workers in systematic zoology, shall contain also an adequate representation of workers in those of the applied sciences which are concerned with species belonging to the Animal Kingdom and have an interest therefore in zoological nomenclature and also of university and other teachers of zoology. Naturally, the scope of

the representation to be sought both in the systematic and applied fields must cover not only living animal forms but also fossil forms and in consequence arrangements must be made for the due representation of palæontologists as well as of workers concerned with living species. The second direction in which further reforms are needed is that necessary to secure that representation is afforded on the Commission to zoologists of any country who wish to participate in its work.

- 20. The Executive Committee are accordingly of the opinion that the stage has now been reached when it is desirable that the International Congress of Zoology should accept the principle that, having regard to the great increase in the number of Sovereign States which has occurred since 1913, the year in which the composition of the Commission was fixed at 18 members, the rapid development of work, both taxonomic and other, which has taken place during the last three decades, and the great increase in the geographical dispersion of workers in these fields, the International Commission on Zoological Nomenclature should now be given a wider foundation, both territorially and by reference to specialised knowledge of the problems of nomenclature affecting different groups in the Animal Kingdom and of the needs of scientific men whose work involves the study of organisms belonging to the Animal Kingdom.
- 21. In these circumstances the Executive Committee recommend that at their forthcoming meeting in Paris the International Commission should submit the following scheme of reorganisation to the Congress for approval:—
 - (1) that, subject to the simultaneous adoption of the revised rules of procedure indicated in Paper I.C.(48)4, the International Commission on Zoological Nomenclature should cease to be a body with a fixed membership of 18 members and that in lieu of this system there should in future be set a minimum membership of 18, but that there should be no maximum upper limit to the membership;
 - (2) that, consequent upon the adoption of the foregoing change, the International Commission should be authorised to elect to its membership a specialist or specialists to represent zoologists or palæontologists or workers in the applied biological sciences resident in any country which is either unrepresented on the Commission or for which the existing representation is, in the opinion of the Commission, inadequate, provided that, in the former case, the Commission are satisfied that a considerable body of zoological work is being conducted in the country concerned or alternatively that there is a leading specialist who is a resident national of that country, the election of whom to be a member of the Commission would be to the general advantage;
 - (3) that every application for the appointment to the Commission of a national representative or, where there is already such a representative, of additional representatives, should be submitted to the Commission either through the diplomatic representative of the country concerned in the country in which the headquarters of the Commission are situated, or direct by a Government Department of the country

concerned, or by the National Academy of Science or some other leading Scientific Institution or learned Society in that Country;

(4) that every application for the appointment to the Commission of a national representative or representatives which may be received by the Commission shall be referred forthwith to the Executive Committee of the Commission whose duty it shall be to satisfy itself, on behalf of the Commission:—

(a) that the body signatory to the application is adequately

representative of the country concerned;

(b) that, having regard to the conditions prescribed in (2) above, there are grounds which would justify the appointment of a national representative or, where there is already such a representative, of an additional representative;

(c) that the candidate proposed for election is personally possessed of the technical knowledge, experience, energy and other qualifications requisite for the performance of the duties of a member of

the Commission:

- (d) that the election of the representative or additional representative, as the case may be, would not conflict with the principle that the membership of the Commission should be such as to secure, as far as may be practicable, that the national representation thereon shall bear an appropriate relation to the volume of zoological and palæontological work currently being conducted in different parts of the world and that there shall be a like balance in the representation on the Commission of different types of knowledge and experience as regards both work on the systematics of the principal divisions of the Animal Kingdom and work in those branches of applied science which are affected by changes in zoological nomenclature;
- (5) that, where the Executive Committee are satisfied on all the matters specified in (4) above, they shall thereupon elect the proposed candidate to be a member of the Commission and shall forthwith promulgate the said election in the Bulletin of Zoological Nomenclature;
- (6) that, where the Executive Committee are satisfied in regard to the matters specified in (a), (b), and (c) of paragraph (4) but not in regard to the matter specified in (d) of the same paragraph, they may nevertheless elect the proposed candidate to be a member of the Commission, provided that at the same time they elect also another member or members of the Commission to maintain the balance prescribed in the said sub-paragraph (d) of paragraph (4) above;
- (7) that, where, through death or resignation, a vacancy arises in the membership of the Commission, the Executive Committee shall invite the authority or authorities as the case may be specified in paragraph (3) above to submit the name of a proposed candidate to fill the said vacancy, and, having received the said nomination, shall satisfy themselves regarding the personal qualifications of the said candidate, as prescribed by sub-paragraph (c) in paragraph (4) above, and, having done so, shall elect the candidate to be a member of the Commission

and shall promulgate the election in the manner specified in paragraph (5) above:

- (8) that, consequent upon the adoption of the recommendations specified in paragraphs (1) to (7) above, the system by which the members of the Commission are divided into three Classes, each Class consisting of six members and serving for a term of nine years, subject to the condition that the term of the oldest Class shall be automatically closed at the end of each meeting of the Congress, should be modified as follows:—
 - (a) In order to take account of the fact that under the new system the total membership of the Commission will not always be exactly divisible by three, every person elected to be a member of the Commission (other than a person elected to fill a vacancy caused through death or other cause, who shall be placed in the same Class as his predecessor) shall be placed in whichever Class has the smallest membership (places vacant for other causes being treated for this purpose as though they were filled) and, if two Classes have an equal membership, that membership being less than that of the third Class or if the membership of all three Classes is the same, the new member of the Commission shall be placed in the Class, the term of service of which is first due to expire.
 - (b) In view of the fact that every member of the Commission will be a national representative duly nominated by the highest scientific authorities in his own country, it is suggested that in future the Congress should waive its right directly to elect the Commissioners to fill the new Class to be constituted as from the close of the Congress and, in lieu of the present system, the Commission should be instructed to report to the Congress the names of the national representatives whom it is proposed to appoint to the new Class and to ask the Congress to signify its approval of the action proposed.
- 22. The Executive Committee confidently commend the foregoing recommendations to the favourable consideration of the International Commission, being convinced that it is only by the adoption of these changes, accompanied by the concurrent modifications in the rules of procedure recommended in Paper I.C.(48)4 that the Commission will acquire a genuinely representative territorial foundation and a wide range of technical and professional knowledge and experience and will thus secure for itself the moral standing to enable it to act as the final international authority in regard to all matters connected with zoological nomenclature.

FRANCIS HEMMING.

Secretary to the International Commission on Zoological Nomenclature.

Secretariat of the Commission, London, England. 10th July, 1948.

PAPER I.C.(48)4

THE RULES OF PROCEDURE OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Memorandum by the Secretary to the Commission

The most serious—because the most merited—of the criticisms which have in the past been levelled against the International Commission have been (a) that the period taken in obtaining decisions on questions of nomenclature has often been much too long (amounting in some cases to 20 years) and (b) that the *Liberum Veto* imposed by the Commission on itself, when dealing with certain classes of case, has obstructed the work of the Commission by making it impossible to secure any decision where even a single member of the Commission dissented from the action proposed.

- 2. At the present time the Commission has before it a larger number of applications than at any previous period in its history and it is certain that it will be impossible to deal with these promptly unless a thoroughgoing reform is introduced into the procedure of the Commission. It is perfectly clear also that the whole position of the Commission will be impaired in the eyes of zoologists generally unless it takes effective steps to enable it to clear off existing arrears of work and in future to give decisions quickly.
- 3. If these were the only considerations involved, the Commission would clearly need to consider at its Paris meeting how best it could set its house in order. But there are other reasons of a most cogent character which would make it essential to revise certain of its rules of procedure even if (as we see is not the case) those rules had so far proved adequate to meet the needs of the Commission. I refer to the proposals of the Executive Committee for the introduction of certain changes in the composition of the Commission which have been laid before the Commission in Paper I.C.(48)3.
- 4. In the paper referred to above, the Executive Committee made it clear (in paragraph 3) that the simultaneous reform of the rules of procedure of the Commission is an indispensable condition to the adoption of their proposals for reorganisation of the composition of the Commission and indicated that they proposed to submit separately their proposals as regards the procedure of the Commission. Those proposals are submitted in the present paper.

- 5. The proposals which the Executive Committee now submit to the International Commission are designed both to remedy the defects which experience has shown to exist in the present rules of procedure and also to secure that the revised rules now to be adopted shall be appropriate to the practical needs of the Commission after the composition of the Commission has been reformed and enlarged in the manner indicated in the recommendations submitted in Paper I.C.(48)3. Most of the changes recommended by the Executive Committee can be adopted by a simple vote taken by the Commission itself, but that part of these recommendations which is concerned with harmonising the "plenary powers" procedure with modern conditions will need to be submitted by the Commission to the Section on Nomenclature at the Congress for approval.
- 6. The recommendations on this matter which the Executive Committee now submit for the favourable consideration of the International Commission are as follows:—
 - (1) that both at meetings of the Commission and when, during intervals between meetings, decisions on questions of zoological nomenclature are required:—
 - (a) a proposed Opinion or Declaration on any matter not involving a change in the Règles or the use by the Commission of their plenary powers to suspend the Règles shall be adopted as the Opinion or Declaration of the whole Commission when all the members of the Commission have voted or when, after a period of six calendar months calculated from the date of the despatch by the Secretary to the members of the Commission of final voting papers in regard to the proposed Opinion or Declaration, a majority of those Commissioners whose completed voting papers shall have been received by the Secretary have voted in favour of the proposed Opinion or Declaration;
 - (b) a proposed Opinion or Declaration containing a recommendation to the International Congress of Zoology for any change in, or addition to, the Règles or involving the use by the Commission of their plenary powers shall be adopted as the Opinion or Declaration of the whole Commission in like conditions to those specified in (a) above, save that every such proposed Opinion or Declaration shall require to receive at least two out of every three votes cast in order to secure its adoption;
 - (2) that the International Congress of Zoology should be invited:---
 - (a) to amend as follows the Resolution adopted by it at its Ninth Meeting held at Monaco in March, 1913, under which, subject to certain conditions, it conferred upon the International Commission on Zoological Nomenclature plenary powers to suspend the Règles where, in the opinion of the Commission, the strict application of the Règles would clearly result in greater confusion than uniformity:—

- (i) Article 1, first proviso: by the substitution of the words "shall be given in the Bulletin of Zoological Nomenclature and copies of the said notice communicated to the following publications" for the words "shall be given in any two of the following publications";
- (ii) Article 1, second proviso: by the substitution of the words "provided that the number of votes cast in favour of suspension is at least twice as great as the number of votes cast against suspension" for the words "provided, also, that the vote in the Commission is unanimously in favour of suspension";
- (iii) Article 1, third proviso: to be deleted.
- (iv) Article 2 (" That in the event that a case. . . is concerned"): to be deleted.
- (v) Articles 3 and 4: to be renumbered 2 and 3 respectively.
- (b) to agree that the foregoing resolution, amended as recommended in (a) above, be incorporated in the Règles. (See Recommendation in paragraph 2(5) (c) of Paper I.C.(48)1).
- (3) that, having regard to the importance of taking every practicable step to secure that in future decisions on applications submitted to the Commission are taken as rapidly as is consistent with due consideration of the issues involved, the procedure to be adopted in dealing with such applications should be as follows:—
 - (a) subject to the necessary funds being available, every application submitted to the Commission or, in the case of a long paper, an agreed summary thereof, shall be published in the Bulletin of Zoological Nomenclature as soon as possible after its receipt by the Secretary, subject to the Secretary first satisfying himself (i) that the application is in appropriate form with all the bibliographical and other data necessary to enable the Commission to reach a decision thereon and (ii) that it is drafted in accordance with the requirements of Declaration 4;
 - (b) each issue of the Bulletin containing the texts of applications submitted to the Commission shall contain a notice displayed in a prominent position drawing the attention of readers to the fact that voting on the said applications will be started at the end of six calendar months calculated from the date of publication of the said issue of the Bulletin and inviting any reader who wishes to submit comments on the proposals in question to do so in writing to the Secretary to the Commission as quickly as possible and in any case before the expiry of the six-month period referred to above:
 - (c) as soon as possible after the expiry of the period referred to in (b) above, the Secretary shall report to the members of the Commission any comments which he may have received in regard

to any such application and shall at the same time submit recommendations as to the terms of the *Opinion* or *Declaration* proposed to be rendered by the Commission in regard to the said application, together with voting papers to be used in connection therewith:

- (d) in order to eliminate the delay inevitable between the completion of voting and the publication of the Opinion or Declaration embodying the decision of the Commission, the Secretary should publish in the Bulletin the "summary" of each Opinion or Declaration adopted by the Commission as soon as possible after the conclusion of the voting thereon;
- (4) that, in order to assure the zoological and palæontological public of the determination of the International Commission to do everything possible to speed up its procedure, the International Commission should take all practicable measures to bring to the notice of zoologists and palæontologists the revised procedure set out in (3) above and should at the same time:—
 - (a) explain that it is hoped that, when the existing backlog of applications has been worked off, it will normally be possible for the Commission to announce its decision on any given application within a period of about fifteen months from the date of its receipt;
 - (b) express the hope that, where an application is concerned with the proposed use by the Commission of their plenary powers for the purpose of validating a name or nomenclatorial usage, which, under a strict application of the Règles, would need to be sunk in synonymy or changed, as the case may be, specialists in the group concerned will recognise that, as the case is sub judice, it is desirable to avoid any action which might prejudice the decision to be taken by the Commission and will accordingly refrain from aggravating the position until such time as a decision is given by the International Commission;
- (5) that provision for the foregoing changes of procedure should be made in the revision of the By-Laws which the International Commission have already agreed should be undertaken as soon as possible.

FRANCIS HEMMING.

Secretary to the International Commission on Zoological Nomenclature.

Secretariat of the Commission, London, England. 10th July, 1948.

PAPER I.C.(48)5

THE MEANING OF THE EXPRESSION "NOMENCLATURE BINAIRE" AS USED IN THE "RÈGLES" AND ACTION PROPOSED FOR THE AMENDMENT OF THE "RÈGLES" IN REGARD THERETO.

Note by the Secretary to the Commission

The Commission will recall that at the Twelfth International Congress of Zoology held at Lisbon in September, 1935, they accepted an invitation from the President of the Section on Nomenclature to prepare a comprehensive Report, for submission to the Thirteenth International Congress, in regard both to the meaning of the expression "nomenclature binaire" as at present used in the Règles and to the question whether any and, if so, what amendments of the Règles were needed in regard to this matter.

- 2. Very briefly, the position at the opening of the Lisbon Congress was:-
- (1) that the expression "nomenclature binaire" had been inserted in Article 25 of the Règles in 1901 in place of the more precise expression "nomenclature binominale" with the intention of leaving it an open question whether or not generic names published after 1757 by non-binominal authors should have rights under the Law of Priority, a question on which at that time zoologists were divided;

(2) that in *Opinion* 20, published in 1910, the International Commission gave a ruling that the expression "nomenclature binaire" was to be interpreted as covering generic names published by non-binominal authors:

(3) that for the next 20 years repeated efforts were made without success to question the correctness of the interpretation given by the Commission but these efforts were successfully resisted by the Commission:

- (4) that at the Padua Congress in 1930 the Section on Nomenclature insisted on discussing this question and took a vote (by a majority) declaring that the expression "nomenclature binaire" should be interpreted in the narrower of the two possible senses, i.e., that it should be interpreted as having a meaning identical with the expression "nomenclature binominale."
- 3. The acute controversy which followed the Padua Congress at one time almost threatened to destroy the rule of international law in zoological nomenclature. It was to give a breathing space and to provide an opportunity

for more sensible views to make themselves felt that at Lisbon the *Comité Permanent des Congrès Internationaux de Zoologie* referred the whole question back to the President of the Section on Nomenclature, who in turn invited the International Commission to submit a Report thereon.

- 4. Two issues are involved:-
- (a) What is the meaning of the expression "nomenclature binaire" as at present used in the Règles?
- (b) Is the consequent meaning of Article 25 the meaning which it is desirable that that Article should have?
- 5. Question (a) presents no difficulties, for on any logical interpretation of the *Règles* it is clear that the expression "nomenclature binaire" can have no meaning other than that of "nomenclature binominale."
- 6. Question (b) might easily have proved controversial and up to 1939 certainly would have done so. I have, therefore, devoted a great deal of attention to the question of finding a solution which will be generally acceptable to zoologists in all parts of the world. I have had extensive correspondence with many zoologists on this matter and I devoted particular attention to it during the numerous discussions held during my visit to the United States last December.
- 7. It is extremely gratifying, therefore, to be able to report that there are solid grounds for believing that a solution on the lines now suggested will prove generally acceptable to American zoologists, many of whom were formerly opposed to a solution of the problem on strictly binominal lines. European and other zoologists may certainly be expected to support the present proposals, for these are in line with the view held by the large majority of those who voted on this question at the Padua Congress.
- 8. The accompanying draft of a Report ¹ on this subject to be submitted by the Commission to the President of the Section on Nomenclature is accordingly submitted for the favourable consideration of the Commission in the confident belief that the proposals which it sets forth provide a means for reaching a final settlement of this long-drawn-out controversy. I must emphasise that the several points of the recommendations embodied in the draft Report are of an interlocking character and that no one of these could be deleted without destroying the balance of the proposal as a whole.

FRANCIS HEMMING.

Secretary to the International Commission on Zoological Nomenclature.

Secretariat of the Commission, London, England. 5th July, 1948.

¹Editorial Note by the Secretary to the Commission.—The draft Report submitted to the International Commission as the Annex to Paper I.C. (48)5 was adopted by the Commission without amendment (Paris Session, Fourth Meeting, Conclusion 3). The text of this Report will be published in Volume 5 of the present journal.

PAPER I.C.(48)6

"RÈGLES INTERNATIONALES DE LA NOMENCLATURE ZOOLOGIQUE": PROPOSALS FOR CONSOLIDATION AND AMENDMENT

Memorandum by the Secretary to the Commission

The Règles Internationales, as they exist to-day, are substantially the same as when they were first adopted 47 years ago by the Fifth International Congress of Zoology at its meeting held in Berlin in 1901, for, with the exception of the introduction of a new text for Article 30 at Boston in 1907 in substitution for the text adopted for that Article at Berlin, the changes which have been made in the Règles have been neither numerous nor important. This does not mean that during the last half-century there has been little progress in zoological nomenclature, for, in fact, during that period the meaning of the Règles has been elucidated in a large number of directions. This has been achieved, however, not by formal changes being made in the Règles but by the development, side by side with the Règles, of a large body of case law derived from the Opinions rendered by the International Commission on Zoological Nomenclature from time to time on questions of interpretation submitted to them for decision. The decisions so reached were not presented in any uniform fashion and in many cases are difficult to follow. These difficulties are greatly enhanced by the lack of an index to the decisions taken in this way. Quite apart from the special difficulties which confront systematic workers as the result of the confused and uncertain situation described above, the Règles themselves contain numerous imperfections; on the one hand they give no guidance on a number of important points, while, on the other, the meaning of a number of provisions is not free from doubt.

2. From the consultations carried out since the close of the war, it is clear that zoologists at large are agreed upon the need for an early effort to secure both a simplification of, and an improvement in, the existing body of international law in regard to zoological nomenclature. Zoologists are undoubtedly looking to the International Commission to initiate proposals to this end at the forthcoming meeting of the Congress at Paris. It is the manifest duty of the Commission to justify these hopes to the full extent in their power, for, if they were to fail to do so, they would have failed in the principal of the duties entrusted to them by the Congress, namely, that of centralising on behalf of the Congress the study of all problems relating to zoological nomenclature.

- 3. What is undoubtedly needed is an overhaud of the Règles, which is at once both careful and thorough. The proposals outlined in the present paper, which are now submitted to the International Commission for consideration, have been conceived in this spirit and are designed to secure this end.
- 4. The present proposals are divided into two parts: the first is concerned with the nature of the improvements which it is desirable should be made in the Règles: the second, with the machinery necessary for securing the incorporation in the Règles of whatever improvements may be decided upon at the Paris meeting. These two subjects are considered separately in the present memorandum.

Part 1. Directions in which it is proposed that improvements should be introduced in the "Règles Internationales"

- 5. There are eight main directions in which the present *Règles* are defective. In regard to each of these, it will be within the power of the Commission at its Paris meeting to secure substantial improvements. These different types of reform are discussed separately in the following paragraphs.
 - (a) Incorporation in the "Règles" of interpretations of existing Articles given by the International Commission on Zoological Nomenclature in "Opinions" already rendered.
- 6. As every working zoologist knows from practical experience, nothing but inconvenience arises from the fact that many important interpretations of Articles of the Règles have been given at various times in Opinions rendered by the International Commission, while no steps have been taken to incorporate those interpretations in the Règles. The first and most urgent of the tasks which require to be undertaken is the incorporation in the Region of appropriate provisions to give formal effect to decisions already taken by the Commission and confirmed by successive meetings of the Congress. It is not proposed that the questions concerned should now be reopened, save in one or two special cases noted below, where it is clear either that the interpretations given by the Commission were misconceived or that there is now a general desire that the Règles should be amended so as to convey a different meaning from that conveyed by the present wording of the Articles in question. What is proposed is no more than a formal consolidation into the Regles of the interpretations which have already been given and which have in consequence become part of the general body of international law in regard to zoological nomenclature.
- 7. When, during the later part of the recent war, it was decided to publish an authoritative edition of the Règles, as they now exist, it was decided also that there should be attached thereto a paper summarising the decisions taken by the Commission in Opinions on questions relating to the interpretation of the Règles. I accordingly prepared such a paper. It has never been published, however, because, after I had completed it. I reached the conclusion that, in spite of every effort to approach the task in an objective spirit, it was likely that some of the conclusions reached might differ from the views held on the same subject by other zoologists and that the latter might feel that their

position had been prejudiced if what could be no more than a summary prepared by a single individual were to be published by the zoologist who occupied for the time being the position of Secretary to the International Commission. This document will provide, however, the material needed by the Commission to decide at Paris on the matters already dealt with in *Opinions* which should now be incorporated in the *Règles*. The document itself is too long (having regard to the paper shortage) to circulate to the Commission, but I hope to be able, before the meeting of the Commission opens, to provide an abridged synopsis as a basis of discussion.

- (b) Important questions of nomenclature where the meaning of the existing provisions in the "Règles" is in dispute.
- 8. There are certain provisions in the Règles where there is at present dispute as to the meaning which should be attached to the wording employed, which it is of the highest importance should be settled with the least possible delay, for, so long as these matters remain unsettled, it is impossible for any worker in systematic zoology to know whether the names which he is using are the correct names for the animals in question under the Règles as they exist to-day. Of the problems falling in this class, three are of outstanding importance, apart from the problem presented by the expression "nomenclature binaire" as used in Article 25, on which (as explained in Paper I.C.(48)1 already circulated) a Special Report must be submitted to the Congress by the Commission at its Paris meeting². These three problems are:—
 - What is the meaning of the expression "indication" as used in Proviso (a) to Article 25 and interpreted in Opinion 1? This is a most important question, for it is clear that on what must be accepted as the most natural interpretation of Opinion 1 a generic name published without a designated type species or any explanatory matter is available, only if the genus so named was monotypical at the time when the name was first published. I have received a very large number of representations in regard to this matter and it is clear from these that in practice the interpretation given above is not acted upon by a large number of systematic workers in a wide field in the Animal Kingdom. The first question which the Commission is called upon to decide is what is the correct meaning under Opinion 1 of the expression "indication." Having decided this question, the Commission will next have to consider whether that meaning is the meaning which it is desirable should attach to this expression. Having reached decisions on these questions, the Commission will have to decide what recommendation to put forward to the Congress to clarify the present position.
 - (ii) What is the meaning of Article 36 in relation to the trivial name of a species or subspecies where that name has been replaced as a homonym (under Article 35) consequent upon the union of genera or the transfer of species from one genus to another, when later on taxonomic grounds

<sup>See Commission Paper I.C.(48)11.
See Commission Paper I.C.(48)5.</sup>

- the species concerned is removed to another genus and its original name ceases to be a homonym? Is that name to be restored in such circumstances or does Article 36 mean that, once a name has been rejected as a homonym, it can never in any circumstances be brought back into use?
- (iii) What is the status under the *Règles* of names originally proposed as names for units of less than subspecific rank? Have they rights under the Law of Priority, either *inter se* or in relation to the trivial names of the species or subspecies to which they are attached? In particular, if a name originally expressly given as the name for a unit of less than subspecific rank is found to be the oldest name bestowed upon any representative of the species or subspecies concerned, can that name be elevated to become the trivial name of the species or subspecies in question?
- 9. Separate papers (Papers I.C.(48)7, 8, and 9) setting out the issues involved and putting forward suggestions as to possible solutions will be circulated for consideration by the Commission at Paris.
 - (c) Minor questions on which there are either no provisions in the "Règles" or where there are provisions but there is doubt as to their implications.
- 10. Cases where there are no provisions in the "Règles": There is a considerable number of cases where there is no provision in the Règles and in consequence there is at present no means of ascertaining what is the action which a conscientious systematic worker should take. A considerable number of applications in regard to cases of this kind has been received by the Commission and, of these, particulars relating to about one dozen have been published in Part 5 of Volume I of the Bulletin of Zoological Nomenclature. It is proposed to seek decisions from the Commission at their Paris meeting on the cases of this class.
- 11. Cases where there is doubt as to the implications of particular provisions in the "Règles": The fourth and fifth groups of Articles in the Règles (namely, those comprising respectively Articles 11-18 and 20) contain a number of provisions relating to the formation of specific trivial names. In these matters the Règles state clearly what should be done but say nothing about the question whether there are any penalties for non-compliance with these provisions. If a name is incorrectly formed, is it to be corrected to comply with the Règles? For example, if a species is intended to be named after a woman called (say) Mrs. Hutchinson, but the name is published as hutchinsoni, should that name automatically be amended to hutchinsonae by later authors under Article 14(3), while retaining priority as from the date of publication as hutchinsoni, or does the name rank for priority only from such later date as it was first published in the correct form hutchinsonae? Every working systematist has encountered cases of this kind and it is high time that unnecessary obscurities of this sort should be eliminated from the Règles.

- (d) Matters on which the existing provisions in the "Règles" are mandator but which should clearly be in the nature of recommendations.
- 12. It is clearly most important that the *Règles* should contain appropriate provisions to secure the general adoption of the best nomenclatorial practice. It is equally important, however, that those provisions should be so drafted as to prevent some merely technical fault of a nomenclatorial character from invalidating an otherwise properly published name. This problem arises only in regard to Article 25 (Law of Priority), for it is that Article alone which prescribes the conditions which are to be satisfied in order to confer "availability" upon a given name as from the date of its first publication. We must look therefore with particular care at the wording used in this Article.
- 13. Two cases have already arisen where words have been inserted into this Article (at Budapest in 1927) which have had the effect of invalidating a large number of names for purely technical reasons. These cases are:—
 - (i) the expression "definite bibliographical reference" in phrase (2) of Proviso (c), as interpreted (perfectly logically) by the Commission in Opinion 138;
 - (ii) the expression "definite unambiguous designation of the type species" in phrase (3) of the same proviso.
- 14. In the first of these cases the effect of the wording used is to invalidate any name proposed as a substitute name for (nom. nov. pro) some invalid name, unless the author proposing the substitute name cites not only the name to be replaced and its author but also the date of publication of the name to be replaced, the title of the work or journal in which the name to be replaced was first published and the page of that work or journal in which the name appeared. It is clearly most desirable that such particulars should always be given and it is highly desirable that there should be a "Recommandation" attached to Article 25 enjoining this practice. But it is equally clear that it is most undesirable that a substitute name should be rendered unavailable under the Law of Priority if by chance the author proposing it fails to give one of the detailed bibliographical particulars specified above. The Commission and the Congress have been severely criticised by many zoologists for the "ritualism" inherent in this provision. This criticism must, I think, be accepted as well directed. The Commission will accordingly be invited to recommend the Congress to amend the foregoing provision in Article 25 in the sense indicated above.
- 15. In the second of the cases referred to in paragraph 13 above, the effect of the wording used is to invalidate a name published after 31st December, 1930, for any monotypical genus, if the author of that genus fails expressly to state that the sole included species is the type species of the genus. This is another example of unintentional ritualism which should be eliminated from Article 25. It is suggested for the consideration of the Commission that in this case the most appropriate solution would be: (i) to redraft phrase (3) of proviso (c) to Article 25 to read "in the case of a generic name, with a definite designation of the type species effected under one or other of Rules (a), (b), (c) or (d) in Article 30"; and (ii) to add a "Recommandation" urging authors proposing new generic names expressly to cite by name the species selected to be the type species of the new genus.

- (e) Matters connected with nomenclature and nomenclatorial practice on which decisions have been taken by the International Congress of Zoology but where those decisions have not been incorporated in the "Règles."
- 16. Matters connected with nomenclature; On a number of important questions relating to nomenclature decisions have been taken by the International Congress of Zoology but those decisions have not been formally incorporated in the Règles. In two noteworthy cases of this kind it has been the practice to embody the text of the Resolutions of the Congress in published editions of the Règles, but this practice is no sufficient substitute for formal incorporation. These two cases are: (1) the Resolution conferring plenary powers upon the Commission in certain cases and (2) the "Code of Ethics." An even more important omission is constituted by the silence of the Règles in regard to the functions of the International Commission on Zoological Nomenclature. It is essential that this should be rectified because it is an integral feature of the settlements which will be proposed in regard (a) to the problem of the meaning of the expression "nomenclature binaire" and (b) to that of the status of names applied to units of less than subspecific status that references to the Commission should be inserted in the Articles dealing with these matters.
- 17. Matters connected with nomenclatorial practice; At various times the Congress (on the recommendation of the Commission) have adopted resolutions in regard to nomenclatorial practice. The proper course in such cases is to embody the texts of the resolutions in question in the Règles, as was done at Monaco (1913) when a resolution was adopted in regard to the terminology of types. In a considerable number of other exactly similar cases this action was not taken and in consequence the value of the resolutions in question has been greatly impaired. The texts of these Resolutions were rescued from oblivion by the action of the Commission in 1943 in embodying them in a series of "Declarations," but the situation will not be satisfactory until the texts in question have been formally incorporated at appropriate points in the Règles.
 - (f) Defects in the "Règles" due to careless or inexpert drafting.
- 18. The text of the *Règles* exhibits many defects, the existence of which must be attributed to careless or inexpert drafting. It is proposed that the Paris Congress should be asked to authorise the climination of these blemishes from the *Règles*. The type of blemish here referred to may be illustrated by the following examples:
 - (1) The relation of the "Appendice" to the "Règles": Although the "Appendice" has always been printed with the "Règles" and undoubtedly forms part of that document, there is not a word in the Règles themselves about the "Appendice" and in consequence there is nothing to show whether the provisions in the "Appendice" are mandatory in character (and, therefore, whether contravention of the provisions in the "Appendice" constitutes a breach of the provisions of the Règles themselves) or whether the object intended to be secured by placing certain matters in the Règles, while relegating other provisions to an "Appendice," was to indicate that the last-named

- provisions were intended to constitute a guide for conduct and were not intended to be mandatory. An inspection of the provisions in the "Appendice" certainly suggests that this was the intention, but doubts on the subject should be eliminated by the inclusion in the Règles themselves of an express reference to the Appendice, the status of the contents of which should at the same time be expressly defined.
- (2) Grammatical inconsistencies; The substantive French text of the Règles (and naturally also the English and other translations) are full of grammatical inconsistencies. Of these the most conspicuous is the random and haphazard use of tenses of the verb "être" (= to be), it being a matter of pure chance whether in any given case the Règles state that such and such a thing "est" (= is) done or whether such and such a thing "doit être" (=should be) done. An example of the first type of provision is provided by Article 35, which states that "Tout . . . nom est rejeté . . . quand il a été employé . . . ", while Article 19 provides an example of the second type, where it states "L'orthographe originelle d'un nom doit être conservée, à moins qu'il . . ."
- (3) Drafting difficulties due to the confusion of taxonomy with nomenclature:
 A good example of this type of confusion is provided by Article 31, which appears to give instructions on the "subdivision d'une espèce" and the "subdivision d'un genre," both purely taxonomic operations, with which the Règles of nomenclature are in no way concerned. The intention of this Article was to provide for the nomenclatorial consequences of these taxonomic operations and not for the operations themselves. It would be much more logical and much less confusing if this Article were to be redrafted correctly to convey the meaning intended, namely, that where a nominal species is divided into two or more species, the species to which the original specific name shall in future apply is to be determined in accordance with the rules (in so far as they are applicable) specified in Article 30 for determining the type species of a nominal genus which has been divided into two or more genera.
 - (g) Need for completing the substantive French text of the "Règles."
- 19. The sole substantive text of the International Code of Zoological Nomenclature is the French text, the texts in English and other languages being no more than translations of the substantive French text. Unfortunately, the proposals for the amendment of the code which have been adopted at various meetings of the Congress since 1901 were drafted by the Commission in English and no French text was submitted to the Congress. Accordingly, for these amendments there does not at present exist a text in the French language which can be incorporated in the substantive French text of the Règles. Both the Commission and the Congress are to blame for this state of affairs, the former for having failed to prepare texts of these amendments in the French language for incorporation in the substantive French text of the Règles, the latter for not having insisted upon the preparation of such texts. As a result,

we are to-day in the absurd position that the great majority of the provisions in the Règles have a substantive text in the French language but the few passages which have been added to the Règles since 1901 have substantive texts in the English language. There can clearly be no possible justification for this anomaly. Proposals will therefore be laid before the Commission for the completion of the substantive French text of the Règles.

(h) Need for securing accurate translations in English and other languages of the substantive French text of the "Règles."

- 20. At the present time there exists no text of the $R\grave{e}gles$ in any language which embodies correctly all the changes in the text as originally adopted at Berlin in 1901 which have been approved by later meetings of the Congress. The publication of accurate and complete versions of the $R\grave{e}gles$ in English and other languages is therefore a matter of urgency from the standpoint of workers who desire to have a version of the $R\grave{e}gles$ in their own language. It must be noted, however, that, in addition to being incomplete in various particulars, every version of the $R\grave{e}gles$ hitherto published in English and other languages contains mistranslations of various portions of the $R\grave{e}gles$. What are wanted are texts in English and other languages which are accurate and literal translations of the substantive French text.
- 21. In view of the fact that the French text is the sole substantive text (i.e., that in any case of doubt "le texte français ferait foi"), no translation, however carefully prepared, can ever safely be used to the exclusion of the French text. It was for this reason that it was decided during the war to publish as soon as might be practicable an edition of the Règles in which the French text and the English translation would be placed opposite to one another and could thus be compared line for line, the French text appearing on the left-hand pages of the volume and the English translation on the right-hand pages. Extensive preparations for this edition have been made and a special grant towards its cost has been obtained from the Royal Society of London. The publication of this edition has, however, been deliberately postponed until after the Congress in order to permit of the incorporation therein of any changes which may be adopted at Paris.

Part 2. Proposals as to the machinery to be devised for securing the formal incorporation in the "Règles" of such changes as may be decided upon by the Paris Congress

22. The programme of reforms suggested in the preceding Part of the present paper will constitute a heavy task both for the International Commission on Zoological Nomenclature and for the Section on Nomenclature at the Paris Congress. Nevertheless, I am confident that with goodwill on all sides and with hard work it is a programme which is capable of achievement. If we are to carry through these reforms, we must be extremely careful to ensure that the decisions which we ask the Congress to take are expressed in such terms as to eliminate all possibility of doubt or argument after the Congress has closed.

- 23. The question of procedure is thus one of particular importance. I suggest that in this matter we should adopt the procedure which experience in inter-governmental conferences has been found to be the only method capable of producing satisfactory results. By this I mean that we should draw a sharp distinction between (1) the issues which are to be decided, and (2) the phraseology to be found for giving formal effect to the decisions reached on questions of policy. The first of these tasks is the task of the Commission and the Congress, while the second is a matter for experts in the drafting of legal documents.
- 24. I accordingly suggest for the consideration of the International Commission that, when we meet in Paris, we should concentrate upon drawing up clear and unambiguous recommendations in regard to all the matters relating to the Règles on which we wish to obtain decisions from the Congress. Every such recommendation will need to be submitted to the Section on Nomenclature for consideration. I do not doubt that some of these recommendations will be adopted by the Section in the form which we recommend, but it is possible and indeed likely that the discussion in the Section will show, as regards others, that some variation from our original recommendation is desirable. Where any such variation is agreed upon, we must clearly take great care to ensure that the proposed revision, as finally put to the Section for approval (like the original recommendation), is worded in an absolutely clear and unambiguous manner. After the Section has reached its conclusions, the propositions which it has approved, together with the Commission's Report, will be brought in due course before a Concilium Plenum of the Congress, but it is to be expected that, in accordance with precedent, the resolutions adopted by the Section will be put to the plenary session en bloc and that no discussion or voting on individual items will be permitted.
- 25. If we get so far, there will still remain the task of giving effect to the decisions of the Congress through the formal incorporation of those decisions in the text of the $R\grave{e}gles$. This is a highly technical task, which can only be carried out by expert jurists trained in the task of drawing up legal instruments. Neither the Congress nor the Commission, either as bodies or as individuals, possesses the requisite skill and experience for this task. If it is to be done properly, it must be confided to professional persons possessing the qualifications necessary for the task. On the other hand, it is essential that the Congress should devise some means by which it can retain for itself the right to examine the work of the jurists and satisfy itself that the task has been carried through in strict conformity with the decisions taken in Paris.
- 26. How best to secure this end admittedly constitutes a difficult problem. After giving the matter the best consideration which I can (and drawing for this purpose upon my personal experience as Secretary-General at a number of inter-governmental conferences, at which formal international agreements were adopted), I desire to submit for the consideration of the Commission that the end which we all have in view is most likely to be attained by the adoption of the following procedure:—

- (i) The International Commission on Zoological Nomenclature and the Section on Nomenclature of the Congress to take the greatest possible care to secure absolute precision in the wording of the resolutions to be adopted.
- (ii) After the close of the Congress the resolutions adopted by the Congress on the recommendation of the Commission and the Section on Nomenclature to be referred by the International Commission to their legal advisers with instructions to prepare a revised text of the Règles and a translation thereof in the English language, the revised text so prepared to give precise effect to the resolutions taken in Paris.
- (iii) The revised text prepared by the jurists to be submitted to a specially appointed Editorial Committee (similar to that appointed by the Berlin Congress for the purpose of editing the present Règles after their adoption by that Congress), the duty of this Committee being to satisfy itself that all the changes approved by the Paris Congress have been incorporated in the Règles but that no other change has been made other than purely consequential drafting changes, not affecting the meaning of any provision in the Règles, and, having so satisfied itself, to submit a Report to the Commission, acting for the Congress, certifying that to the best of its knowledge and belief the revised text of the Règles and of the accompanying English translation truly and faithfully complies with the decisions taken at Paris by the Thirteenth International Congress of Zoology.
- 27. If the foregoing procedure were to be adopted, it would clearly be desirable that the revised text of the *Règles* should be published with the utmost possible speed, for, until such publication had taken place, systematists in all parts of the world would be greatly handicapped, for they would know that changes had been decided upon at Paris but they would not be in possession of an authoritative version of the *Règles* in which those decisions had been embodied. Fortunately, owing to the special grant received from the Royal Society of London, the Commission would be in a position to publish the revised text with the utmost speed.

FRANCIS HEMMING,

Secretary to the International Commission on Zoological Nomenclature.

Secretariat of the Commission, London, England. 26th June, 1948.

PAPER I.C.(48)7

> PROPOSED AMENDMENT OF PROVISO (a) TO ARTICLE 25 OF THE "RÈGLES" IN REGARD TO THE MEANING OF THE EXPRESSION "INDICATION" AS APPLIED TO GENERIC NAMES

Memorandum by the Secretary to the Commission

It is laid down in Proviso (a) to Article 25 of the Règles that, in order to have any rights under the Law of Priority, a name, on being published, must be accompanied by (1) an indication or (2) a definition or (3) a description. The first of these conditions—that the name was published with an indication constitutes a minimum condition for a name to be available under Article 25, and it was therefore particularly important that the meaning of the term "indication" should be clearly prescribed.

2. This matter was dealt with in Opinion 1 adopted unanimously by the The portion of the "summary" of that International Commission in 1907. Opinion which is concerned with the status of generic names provides the following interpretation of Proviso (a) to Article 25:

[As respects names published on, or before, 31st December, 1930], the word "indication" in the proviso to Article 25 is to be construed as follows :-

- (B) With regard to generic names, an "indication" is :-

 - a bibliographical reference, or
 a definite citation of an earlier name for which a new name is proposed, or
 a definite citation or designation of a type species.
- 3. In Note 5 of the editorial notes incorporated in the re-issue of Opinion 1 (published in 1944) I pointed out that, according to this Opinion, any new generic name published in the period 1st January, 1758, to 31st December, 1930 (both dates inclusive), (i) without a diagnosis, definition or description or a bibliographical reference thereto and (ii) with two or more published species, none of which (a) was designated as the type or (b) had a name tautonomous with the generic name, was unavailable nomenclatorially under the Règles. A name so rejected was a nomen nudum, that is to say: it had no status (and therefore no availability) as from the date on which it was so published.
- 4. The publication of the re-issue of Opinion 1 with the accompanying editorial notes drawing attention to the implications of that Opinion in relation to the availability of generic names published in the way described above aroused widespread discussion in zoological circles.

5. For, although *Opinion* 1 was adopted and published in 1907, zoologists in general had largely overlooked the extremely narrow interpretation of the expression "indication" as used in Article 25 which it contained. A large number of well-known generic names in common use in various groups of the Animal Kingdom were suddenly discovered to have been unavailable for nearly forty years under the interpretation placed on Proviso (a) of Article 25 by *Opinion* 1.

I. Petition from the Joint Committee on Zoological Nomenclature for Paleontology in America

- 6. An investigation was made under the auspices of the Joint Committee on Zoological Nomenclature for Paleontology in America among representative groups of taxonomists in the United States and Great Britain with a view to assessing the extent of disturbance in established nomenclature and in existing practice in the various sectors of the Animal Kingdom, which would result from a strict application of the interpretation of Article 25 contained in Opinion 1. A questionnaire was submitted to taxonomists working in various institutions in the United States and Great Britain, including the United States National Museum, the American Museum of Natural History, Harvard University, Stanford University, the United States Department of Agriculture, the United States Fish and Wildlife Service, the United States Geological Survey and the British Museum (Natural History). A few taxonomists reported that no names in their specialities were affected and a few were wholly uninterested, but 87 significant replies were received.
- 7. The question posed was the status of a generic name proposed before 1st January, 1931, without diagnosis or definition, or a bibliographic reference thereto, without the citation of an earlier name for which a new name was being proposed, and without designation of a type species, but with two or more valid species included (absolute tautonomy and monotypy being treated as equivalent to the designation of a type species). Two alternative interpretations were then put forward:
 - Interpretation A. (that expounded in the editorial notes to the re-issue of Opinion 1). If two or more species were referred to a genus under these conditions, the minimum requirement of a fixed type species would not have been met and the name consequently would have no availability as from the date of its original publication.
 - Interpretation B. (based on a broader interpretation of the words "indication" or even of "definition" or on Rule (g) in Article 30). Generic names published under the conditions stated are available.
 - 8. A reply was solicited to the following three questions:
 - (1) Is there to-day in your field uniformity of interpretation on this point?

(2) Which interpretation, A, B, or a third?

- (3) If an alternative interpretation were to be employed would the result be disturbing to established nomenclature in your field?
- 9. The Joint Committee on Zoological Nomenclature for Paleontology in America submitted to the International Commission on Zoological Nomenclature the following report on the answers received:

In tabulating the answers to this questionnaire some difficulties were met with. For example, few gave a categorical answer to any question. Most answers to Question I were in terms of the worker's personal procedure and not in terms of general practice in his field of specialisation. On the whole the replies to this question were too varied to permit significant tabulation. Suffice it is to say that most of them were in line with the accompanying reply to Question (2). On Question (2) the replies were extremely varied in form but on analysis presented a remarkably uniform picture. Of the 87 significant replies 76 indicated that Interpretation B, the liberal interpretation, was employed in their field of specialisation, was employed by them in their work or should be employed in preference to Interpretation A under amendment of Opinion 1 or of the Rules if necessary. Some insisted that the liberal interpretation is technically correct. Only 11 of the 87 gave similar answers in favour of Interpretation A, the strict interpretation, and some of these appear to have been influenced largely by the recent re-issue of Opinion 1. The grounds on which Interpretation B were favoured were various. Many expressed the opinion that nomenclature in their fields would be seriously affected if the alternative interpretation were to be employed.

It is possible to regard the replies as "votes" for Interpretation A or Interpretation B. Since many replies were discursive it is necessary to interpret them. Although it is possible that a different interpretation than that employed in the following analysis might conceivably be put on a few of them, it is thought that the results would not be altered significantly. Of the 29 significant replies from British workers 24 favoured Interpretation B and 5 favoured Interpretation A: of the 58 American replies 52 favoured B and 6 favoured A.

The "	votes "	may	be t	abulated	as	follows :-
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Fields of pecialisation				Ame A	rican B	A Br	ritish B	A A	otals B	Repli
Flat worms .			 	U	11	U	()	0	Į1	11
Insects .				0	20	2	7	2	27	29
Other Arthrope	ds			11	1	1	4	21	5	71
Molluses .				3	11	0	6	3	17	20
Brachiopods .				0	2	1	0	1	2	3
Echinoderms .				1 0	.)	0	2	0	4	4
Bryozoa .				0	U	0	2	0	2	2
Coelenterates .				1	1	0	21	1	31	4.4
Foraminifera .				l l	2	1	U	2	2	4
Mammals .				0	3	U	1	0	4	4
Birds				U	4	0	1	U	5	5
F 27 3				0	4	0	1	0	- 5	5
Reptiles and A	mphibi	EL.		1	$3_{\rm T}$	U	0	1	31	41
			 	6	52	5	24	11	76	. 87

- ¹ Includes 1 listed also in another field.
- Includes 2 listed also in another field.

Admittedly the number of replies is not sufficient to make percentage calculations in each group significant, nevertheless the overall picture seems highly significant. To interpret the returns in terms of the original questionnaire, there is no uniformity among zoologists (and paleontologists) as a whole. Where uniformity was found in any group it was in terms of Interpretation B. A very large majority of the returns (approximately 7/8ths) are in favour of Interpretation B, the liberal interpretation. Most of those favouring interpretation B stated that an alternative interpretation would be disturbing to established nomenclature in their respective fields.

10. From the comments received on the questionnaire it was evident that a particularly serious disturbance in nomenclature would arise from a strict application of the terms of *Opinion* 1 in the nomenclature of the two most numerous and complex groups in the Animal Kingdom, insects and molluses (living and fossil), and that important disturbances in many well-known generic names would be experienced also in the case of manimals, birds and fish.

11. Supported by the evidence cited above of the serious degree and extent of disturbance in established nomenclature which would follow from a strict application of the terms of *Opinion* 1, the Joint Committee on Zoological Nomenclature for Paleontology in America submitted in June, 1946, a petition to the International Commission on Zoological Nomenclature, asking them:

"to liberalise Opinion 1 by deleting Proviso 3 of part B of that Opinion interpreting the meaning of the word 'indication' in Article 25 of the Règles with regard to generic names, and substituting a proviso to read: '(3) the inclusion in the newly named genus of one or more validly named species,' or by modifying the Opinion in some other way to obtain the same result."

II. Recommendation submitted

- 12. In a case of this kind clearly the first duty of the Commission is to re-examine the relevant passages of the Règles for the purpose of determining de novo whether the interpretation of that passage given in their earlier Opinion is the interpretation which on a due and proper construction of the words used is properly applicable thereto. Not until they have reached a definite conclusion on this question can they usefully consider what action they should take.
- 13. In the present case everything turns upon the meaning to be attached to a single word, the word "indication" as applied to the conditions in which a generic name is published. We have first to note that no definition of any kind is given for this word in the *Règles*. Nor was any indirect guidance provided beyond the presumption that the content of this word was narrower than that of the word "definition" which in turn was narrower than that of the word "description" as used in the same sentence. In these circumstances it must be agreed that when in 1907 the Commission came to consider this question, they were free to read into the word "indication" any meaning which was narrower than that attaching to the expression "definition." In the interpretation which they gave in their *Opinion* 1 the Commission certainly complied with this requirement. Technically, therefore, no fault can be detected in that *Opinion*.
- 14. If we grant this conclusion, we have next to consider whether it is desirable that the expression "indication" should have, in relation to generic names, the meaning which now attaches to it. The problems here involved are of a very different order from those considered above. We have first to note that, although for nearly forty years the word "indication" used in Proviso (a) to Article 25 has had, in relation to generic names, the very restricted meaning prescribed in Opinion 1, that word has in fact been generally interpreted in a considerably wider sense by many specialists in many of the main groups of the Animal Kingdom. A strict enforcement of the interpretation given in Opinion 1 would, therefore, involve the immediate rejection of a large number of generic names now in common use, which, though poorly established by their original authors, can nevertheless be used without difficulty—and are currently so used—once a type species has been designated under Rule (q) in Article 30. The reversal of the present general (though not universal) practice would thus considerably disturb existing practice and be prejudicial to the stability of nomenclature.

- 15. Looking at this question from a broader point of view, we have to recall that the *Regles* constitute a code of international law which is backed by no sanction other than voluntary acceptance by the general body of zoologists. Where therefore a given provision, whether actually embodied in the *Regles* or written into that instrument by an *Opinion* rendered by the International Commission, is found in practice to be unnecessary (by reason of being too restrictive or otherwise) and also to be repugnant to the practice and wishes of large sections of zoologists, the question at once arises whether it is not in the greatest interest that the provision should be so modified as to bring it into harmony with the general will.
- 16. After examining the evidence submitted to the Commission both by the Joint Committee on Zoological Nomenclature for Paleontology in America and by individual specialists. I have unhesitatingly reached the conclusion that the interpretation of the word "indication" in relation to generic names given in Committee rather than promote, stability in generic nomenclature. I think that it is clear also that the interpretation given in Opinion 1 runs counter to the wishes of the majority of zoologists as to the meaning which it is desirable should attach to this part of Article 25. In these circumstances I strongly recommend the International Commission to recommend the International Congress of Zoology during its forthcoming meeting in Paris:
 - (1) to agree that Proviso (a) to Article 25 should be so amended as to secure that a generic name published before 1st January, 1931, shall be available under that Article as from the date of its original publication not only when (as at present, it was then accompanied by a definition or description but also if it was then accompanied by no verbal definition or description, the only indication given being that provided by the citation under the generic name of the names of one or more previously published species;

 simultaneously with (1) above, to cancel the portion of Opinion 1 which relates to the status of generic names.

EDAYON TENNINO

FRANCIS HEMMING.

Secretary to the International Commission on Zoological Nomenclature.

Secretariat of the Commission. London, England. 15th July, 1948.

PAPER I.C.(48)8

PROPOSED AMENDMENT OF THE PROVISIONS OF ARTICLES 35 AND 36 OF THE "RÈGLES" IN RELATION TO SPECIFIC HOMONYMS

Memorandum by the Secretary to the Commission

I. Historical Introduction

In the latter part of 1937 the late Professor T. D. A. Cockerell, of the University of Colorado, U.S.A., submitted a request to the International Commission on Zoological Nomenclature for an authoritative ruling on the interpretation to be placed on the provisions in regard to specific homonyms of Articles 35 and 36 of the *Règles Internationales*.

- 2. The substantive French text of the Articles in question reads as follows:—
- 35. (1) Tout nom spécifique est rejeté comme homonyme, quand il a été employé précédemment pour quelque autre espèce ou sous-espèce du même genre. Exemple: Taenia ovilla Rivolta, 1878 (n. sp.) est rejeté comme homonyme de Taenia ovilla Gmelin, 1790.
- (2) Quand par suite de la réunion de deux genres, deux animaux ayant le même nom spécifique ou subspécifique se trouvent rapprochés, le nom spécifique ou subspécifique le plus récent doit être rejeté comme homonyme.
- 36. Les noms rejetés pour cause d'homonymie(¹) ne peuvent pas être employés de nouveau. Les noms rejetés pour cause de synonymie(¹) peuvent être employés de nouveau, dans le cas de restauration de groupes supprimés par erreur. Exemple: Taenia qiardi Moniez, 1879, a été supprimé comme synonyme de Taenia ovilla Rivolta, 1878; on a reconnu ultérieurement que Taenia ovilla était préccupé (T. ovilla Gmelin, 1790). Taenia ovilla, 1878, est donc supprimé comme homonyme et ne peut plus jamais être employé; c'était une dénomination mort-née, qu'on ne peut ramener à la vie, méme si l'espèce passe dans un autre genre (Thysanosoma). Le nom spécifique qiardi Moniez, 1879, qui avait été supprimé comme synonyme, devient valable, grâce a la suppression de l'homonyme Taenia ovilla Rivolta, 1878.
- (¹) Il y a homonymie, quand un seul et même nom est appliqué à deux ou plusieurs choses différentes ; il y a synonymie, quand deux ou plusieurs noms différents sont appliqués a un seul et même objet.
- 3. The particular case on which a ruling was requested by Prof. Cockerell was the following:—
 - In 1903 Vachel united the genera Augochlora Smith, 1853, and Agapostemon Guérin-Ménéville, 1844, with the genus Halictus Latreille, 1804, thereby causing Agapostemon coloradensis Crawford, 1901, to become a homonym of the somewhat earlier Augochlora coloradensis Titus, 1901. Vachel thereupon renamed Crawford's species Halictus coloradinus nom. nov. Subsequent writers considered Vachel to have been in error in uniting the three genera, and separated them again. Recognising this separation, Miss Sandhouse (1936, J. Wash. Acad. Sci. 26:77) referred to Crawford's species as Agapostemon coloradinus (Vachel) n. comb., giving Agapostemon coloradensis Crawford, 1901, as a synonym.

³ The third paragraph which now appears in this Article was not inserted until the meeting of the Eighth Meeting of the International Congress of Zoology held at Graz in 1910. This paragraph was adopted in an English text. There is at present no substantive French text.

- 4. Professor Cockerell did not accept Miss Sandhouse's procedure, which he described (in litt., 28th August, 1937) as "a reductio ad absurdum of nomenclature," although he could not help admitting that it was a natural interpretation of the literal wording of Article 35, paragraph (2), read in conjunction with Article 36. After quoting these provisions (in litt., 4th October, 1937) he commented:—
 - "Now any lawyer could use this to show that if a species was referred to the wrong genus, and so became (its name became) a hononym—legitimately according to the usage of the then author—that specific name would be lost for ever, even though all might agree that the species did not belong to (and had not been described under) the genus in which its name had been suppressed."
- 5. At the time when Professor Cockerell's request reached the Commission in 1937, such little time as I had available from extreme pressure of official work was entirely absorbed in establishing the Secretariat of the Commission at its new headquarters and sorting the voluminous papers transferred from Washington. Early in 1938 I accordingly invited the President of the Commission to undertake on my behalf the task of making a peliminary sounding of the views of the Commissioners on the matter, preparatory to the drafting of an *Opinion* on the interpretation of Articles 35 and 36. This consultation was completed by June. 1939, when the President handed to me the results of his enquiries.
- 6. The outbreak of war in September, 1939, led to a suspension of further progress on this question until I was able to take up once more the work of the Commission in 1942. Since that time I have been able to give a great deal of further consideration to the matter and have received a large volume of correspondence and some extremely valuable contributions on the subject. These convinced me of two things. In the first place, it was apparent that the general opinion and practice of zoologists in the treatment of so-called secondary homonyms was developing and changing, so that it seemed advisable to postpone further steps in approaching a settlement of the problem until after the war was over and consultation on a wider and more representative basis became possible. In the second place, I became convinced that the original plan of confining ourselves to securing an authoritative interpretation of the existing text of Articles 35 and 36 (as requested by Professor Cockerell) was no longer adequate to the situation and that a more radical treatment of the whole problem was needed.
- 7. The necessity for a fresh approach was evident on two grounds. In the first place, a closer examination of the text of Articles 35 and 36 disclosed a number of gaps and ambiguities and failed to provide answers to a number of essential questions, the most important of which are listed in the following section. In the second place, the preliminary consultations conducted by the President (as well as Professor Cockerell's application) brought to light a fundamental confusion of two distinct questions: first, what the Règles as they stand really mean and, second, what zoologists in general would like them to mean, which might well be, and in this particular case apparently was, entirely different.

8. This confusion no doubt arose from the unduly defeatist attitude then prevalent towards the possibility of amending the Regles and the conviction that the only way of giving effect to desirable changes was to persuade the International Commission to give an *Opinion* interpreting the existing provisions of the Regles in the desired sense, irrespective of the normal meaning of the words used or of the intentions of their original authors. Such a procedure cannot be regarded as satisfactory or likely to promote the general respect and adherence which the Regles Internationales should aim to command. If zoologists in general are not satisfied with the provisions of the Regles as they stand, it is far better for these provisions to be amended in the direction required than for the International Commission—or individual workers—to try to read into the existing words a meaning which is obviously not there at present.

II. Gaps and ambiguities in the existing provisions of Articles 35 and 36

- 9. The following list, without attempting in any way to be comprehensive, may be useful as indicating some of the most serious gaps and ambiguities which have already been found in the provisions of Articles 35 and 36. This will serve both to underline the necessity for a thoroughgoing revision of these Articles as well as suggesting the directions which such a revision should take. The following are some of the main questions to which the existing wording of Articles 35 and 36 provides no satisfactory answer:—
 - (1) Does the expression "nom specifique" in Article 35 mean nomen specificum (i.e. the binominal combination of a generic and a specific trivial name) or nomen triviale (in the terminology of Linnaeus)?
 - (2) Does the first paragraph of Article 35 refer only to original combinations of generic and trivial names or is it intended to cover also the subsequent combinations of trivial and generic names arising from the union of genera or the transfer of a species to a different genus from that in which it was originally described?
 - (3) Does the expression "autre espèce du même genre" in the same paragraph include also a species placed in a genus belonging to a different group but having, through inadvertent homonymy, the same name?
 - (4) Does the expression "la réunion de deux genres" in paragraph 2 of Article 35 include the subjective union of genera with different type species as well as the objective union of genera with the same species as type?
 - (5) What is the position of homonyms arising from the union of three genera?
 - (6) What is the position of homonyms arising from the transfer of one (or more) species from the genus in which it was (or they were) originally described to some other genus?
 - (7) What is the meaning of the expression "se trouvent rapprochés" in paragraph 2 of Article 35? Does it involve the actual citing of the two species concerned in the same genus? If not, does it apply only to the type species or does it cover all the species originally described (or subsequently placed) in the two genera concerned?

- (8) What is the meaning of the participle "rejetés" as used in Article 36? Is it confined to names which have been expressly rejected (whether or not the species concerned was renamed) by some author or does it cover all cases where homonymy has arisen under the provisions of Articles 35 and 36, whether or not this has been noticed and appropriate action taken? For example, if it is discovered that a name once became a homonym, through the union of genera or the transfer of species, but this fact remained unnoticed at the time and no action was taken expressly to "reject" the name, can this name still be used if the two genera have subsequently been separated or one of the species transferred to another genus? Similarly, if two species with identical trivial names were originally described in the same genus (or in different genera having by the accident of homonymy the same name), but this was not noticed at the time, and the species have subsequently been transferred to different genera, should the later published of the two trivial names be replaced, although it was never actually "rejeté pour cause d'homonymie," and the homonymy (as defined in the footnote to Article 36) no longer exists?
- (9) Should a species of which the name has been rejected "pour cause d'homonymie" always be given a new name, or is it sufficient to replace the rejected name by a junior synonym, if such exists? In the latter case, what is the correct name of the species concerned if, on a subsequent revision, the synonymy is no longer recognised?
- (10) What is the implication of Article 6 of the Règles ("Les noms des genres et des sous-genres sont soumis aux mêmes règles; ils sont coordonnés au point de vue de la nomenclature, c'est-à-dire de même valeur") in relation to the provisions of Articles 35 and 36?
- (11) What is the implication of Article 11 of the Règles (les noms spécifiques et subspécifiques sont soumis aux mêmes règles et recommandations; ils sont coordonnés au point de vue de la nomenclature, c'est-à-dire de même valeur ") in relation to the provisions of Articles 35 and 36, with special reference to the nomenclature of nominotypical subspecies?

III. Analysis of major types of homonyms

- 10. The above questions suffice to show that the problem of homonyms is considerably more complex than appears to have been realised by the authors of the *Règles*, and that any satisfactory regulation regarding them will need to be both more precise and more comprehensive than are the provisions of Articles 35 and 36 as they now stand.
- 11. In approaching the problem afresh it will facilitate the discussion if we adopt as a basis the schematic presentation of eight major types of homonyms recently put forward by Dr. Richard Blackwelder. Dr. Blackwelder's schema is reproduced in the appendix to the present paper.
- 12. In these diagrams two genera. "X" and "Y," are represented in parallel vertical columns. The history of each of two specific trivial names is indicated by a vertical line with dates marked at various points in its vertical

course. The horizontal line at the bottom represents the time at which the homonymy is discovered. In case "A" the name albus was proposed twice in genus "X," producing unequivocal homonymy from 1900 onwards. Case "B" is exactly the same except for the later removal of one of the species to genus "Y." In case "C" the older name has been removed from genus "X" before the proposal of the second name. In case "D" the two names were originally proposed in separate genera, but by the time the second was proposed in genus "X" the older name had been transferred to genus "X," producing unquestionable homonymy. Case "E" is the same except that the transfer of the older takes place after the proposal of the younger. Cases "F," "G" and "H" are the same cases as "D" and "E" except that the transfer of the older name to genus "X" was temporary; in case "F" entirely prior to, in case "G" entirely subsequent to, and in case "H" partly before and partly after the proposal of the name albus Smith, 1900.

IV. Requirements of a satisfactory solution

- 13. Discussions of the problem of homonyms, both past and recent, have disclosed wide divergencies of views and suggest that it is not likely to be possible to find any solution which will give complete satisfaction to everyone. The solution to be aimed at must satisfy to as high a degree as possible a number of different, and in part mutually inconsistent, requirements. It is the difference in weighting attributed to these conflicting desiderata, rather than a difference in views on the desiderata themselves, that it is responsible for the widely divergent proposals advocated in different quarters.
- 14. The principal desiderata which any satisfactory solution must aim to supply to the highest degree mutually compatible with one another may be listed as follows:—
 - (1) to avoid the confusion which would arise if the same name were used for two different species of animal;
 - (2) to avoid the confusion which would arise if one species of animal were known by two different names;
 - (3) to avoid the need for unnecessary time-consuming researches into early literature;
 - (4) to avoid any subjective element in the interpretation of the Règles, so that the trivial name which they prescribe will be independent of the taxonomic views of individual workers;
 - (5) to avoid unnecessary changes in trivial names now in use;
 - (6) to avoid the risk of names being unnecessarily replaced through deliberate misuse of the provisions of the Règles.

V. Main solutions which have been suggested

15. Although there is no mention of it in the Règles, a distinction has been drawn by many zoologists between primary homonyms on the one hand and secondary homonyms on the other. Primary homonyms are pairs of specific names consisting of identical combinations of generic and specific trivial names at the time of their original publication. Secondary homonyms are all other

kinds, namely pairs of identical specific trivial names which were not originally published in the same genus but subsequently came to be used in combination with the same generic name through the transfer of one or both of the species concerned to another genus or through the union of two or more genera. Thus cases "A", "B" and "C" in the annex to the present paper are examples of primary homonyms and cases "D", "E", "F", "G" and "H" are examples of secondary homonyms.

- 16. It is agreed by all concerned that where homonymy (in the sense of the footnote to Article 36) directly exists (e.g. in cases "A", "D" and "E") the later published of the two identical trivial names must certainly be replaced. The main issues on which opinions (and practice) differ are the following:—
 - (1) Should a primary homonym be replaced whenever it is discovered or only when the condition of homonymy still exists (case "A") but not otherwise (cases "B" and "C")?
 - (2) Should a secondary homonym be replaced whenever it is discovered or only when the condition of homonymy still exists (cases "D" and "E") but not otherwise (cases "F", "G" and "H")?
 - (3) If a primary homonym has been replaced because a situation of homonymy existed at that time, should the original name be restored later when, through the transfer of one or both of the species to another genus (or other genera) or through the subdivision of the original genus into two or more genera, the condition of homonymy no longer exists? (e.g. in case "B" if albus Smith had been replaced by a new name some time between 1900 and 1920 when it was in the same genus as albus Latreille, should the name albus Smith be revived after 1920 when the older species albus Latreille had been removed to another genus?).
 - (4) If a secondary homonym has been replaced because a situation of homonymy existed at that time, should the original name be restored later when, through the further transfer of one or both of the species to another genus (or other genera) or through the subdivision of the genus in which the homonymy occurred into two or more genera, the condition of homonymy no longer exists? (e.g. if the name albus Smith had been replaced between 1910 and 1920 in case "G" or between 1900 and 1910 in case "H" when it was a homonym of albus Latreille, should the name albus Smith be restored again in 1920 in case "G" or in 1910 in case "H" when the condition of homonymy no longer exists?).
- 17. The various permutations and combinations of possible answers to these questions would give more than a dozen possible solutions, but it will suffice to consider five main proposals which have been put forward or have received consideration. These are:—
 - (1) The permanent replacement of all homonyms whenever they are discovered. (i.e. rejection and permanent replacement of albus Smith in cases "A", "B", "C", "D", "E", "F", "G" and "H" whenever homonymy is discovered.)

- (11) The permanent replacement of primary homonyms whenever discovered, combined with the temporary replacement of secondary homonyms only if discovered when, and for the period during which, homonomy exists (i.e. rejection and permanent replacement of albus Smith in cases "A", "B" and "C" whenever discovered, and the temporary replacement of albus Smith if homonymy is discovered between 1910 and 1920 in case "G" and between 1900 and 1910 in case "H", with its restoration after 1920 in the former case and after 1910 in the latter. In cases "D" and "E" albus Smith must necessarily be replaced after 1910 and 1920 respectively, since the condition of homonomy in these two cases is assumed to persist. In case "F" there is no need to replace albus Smith at all.)
- (III) The temporary replacement of both primary and secondary homonyms if discovered when, and for the period during which, homonomy exists. (The same as proposal (II) except that in case "B" albus Smith would not have to be replaced permanently but only for the period 1900-1920 if the homonymy were discovered during these years, and in case "C" would not need to be replaced at all.)
- (IV) The permanent replacement of both primary and secondary homonyms, but only if discovered when the condition of homonymy exists. (The same as proposal (I) except that the replacement of both primary and secondary homonyms would take place only if discovered while the condition of homonymy existed.)
- (V) The permanent replacement of primary homonyms whenever discovered, combined with the permanent replacement of secondary homonyms only if discovered when the condition of homonymy exists. (The same as proposal (II) except that replacement of secondary homonyms, whenever it takes place, is to be permanent.)

The main arguments that have been advanced for and against these various proposals are listed in the following paragraphs.

PROPOSAL (1). The permanent replacement of all homonyms whenever they are discovered.

- 18. The following arguments have been advanced in favour of this proposal:
- (1) It appears to conform with the letter of Articles 35 and 36 as those Articles exist to-day. On this Miss Sandhouse commented (in litt. 25th November 1938): "While a consistent adherence to the Rules makes for inconvenience now, it seems the only way to attain permanence in names".
- (2) The late Secretary Stiles supported Miss Sandhouse's view in the following words: "Primary homonyms are still-born. Secondary homonyms are killed or die after birth. Neither a still-born child nor a

- dead child can be brought to life. Both are dead and should be buried or cremated or embalmed. I agree in toto with Miss Sandhouse. Any other interpretation will open this subject to unforeseen confusion in nomenclature."
- (3) Under this proposal each species would be known by only one trivial name, irrespective of the subjective taxonomic views of individual workers as to the genus to which it belongs.
- (4) Secondary homonyms would be eliminated for all time and could not crop up again as a result of a change of view by a single worker.
- (5) This proposal would tend to reduce the number of species with the same trivial name in allied genera and thereby avoid possible sources of confusion.
- 19. The following arguments have been advanced against this proposal:-
- (1) President Jordan commented at the time on Secretary Stiles' remarks quoted in paragraph 18 (2) above: "Stiles is quite wrong in saying that a secondary homonym is killed. It is imprisoned in consequence of a faulty judgment and should be released as soon as the mistake is found out." The only form of secondary homonym which he then considered could be regarded as definitely killed and therefore as requiring to be permanently replaced would be that resulting from the objective union of two genera (i.e. the union of two genera with the same nominal species as type). In this case the imprisonment would have been based on a correct and not a faulty judgment so that execution could confidently be allowed to take place.
- (2) This proposal is open to abuse by any irresponsible or malicious reviser, who by placing all species in one genus could cause untold confusion by making necessary the renaming of many thousands of species throughout the Animal Kingdom. To illustrate this point, President Jordan submitted an imaginary example of a Mr. Mallocus, adherent of the view formerly advanced by Dr. Borggreve that no specific trivial name should be used more than once in Ornithology. In this example Mr. Mallocus in 1940 "united all the birds in one genus, rejected the few thousand homonyms thus created, renamed the species affected, and after this purification, put, in 1941, the species back into the genera where they had been in 1940."
- (3) It would cause unending trouble and confusion to the systematic worker who would need to be constantly on the watch to make sure that no author had amalgamated some genus with another and thus destroyed the availability of what had previously been a perfectly valid name. He would require to make a close study of the works not only of the best authors (as at present) but also of the worst authors, for it would be mostly in the works of such authors that the lumping of valid genera into large omnibus genera would be likely to be found. Systematic workers would also have to extend their reading to educational and semi-popular works where the nomenclature is often extremely faulty.

- PROPOSAL (II). The permanent replacement of primary homonyms whenever discovered, combined with the temporary replacement of secondary homonyms only if discovered when, and for the period during which, homonymy exists.
- 20. The following arguments have been advanced in favour of this proposal:—
 - (1) It is the practice that has been most widely followed in the past.
 - (2) The fact that the only example given in Article 36 of the *Règles* is of a primary homonym has been cited as an argument that this Article was intended to apply to primary homonyms only.
 - (3) It avoids the necessity of renaming species whose names were once secondary homonyms, but where the secondary homonymy has ceased to exist (cases "F," "G" and "H").
 - (4) It enables a species which has been renamed on account of secondary homonymy to revert to the trivial name under which it was originally described once the homonymy has ceased to exist.
 - (5) It does not open the way to deliberate creation of secondary homonyms by irresponsible or malicious writers (cf. (2) of paragraph 19 above).
 - (6) It avoids the necessity of replacing names which under the previous proposal would be invalidated by a careless or ignorant lumping together of species and genera in popular or unscientific works, and avoids the need for taking account of such works (cf. (3) of paragraph 19 above).
 - 21. The following arguments have been advanced against this proposal:—
 - (1) The wording of the Règles makes no distinction between primary and secondary homonyms.
 - (2) Where the name of a species has been replaced as a secondary homonym but later that species has been placed in a different genus, the species would be known by different trivial names according to the taxonomic views of different workers as to the genus to which it belongs.
 - (3) The subsequent resurrection of names formerly rejected as secondary homonyms when the condition of homonymy no longer exists leads to unnecessary changes of names.
 - (4) The distinction between the treatment of primary and secondary homonyms is illogical if our only interest is to remedy a situation of homonymy existing at the present time.
 - PROPOSAL (III). The temporary replacement of both primary and secondary homonyms if discovered when, and for the period during which, homonymy exists.
- 22. The following arguments have been advanced in favour of this proposal:—

- (1) It is the logical procedure if our only interest is to avoid a situation of homonymy at the present time (cf. (4) of paragraph 21 above).
- (2) Where this has not already been done, this proposal would remove the need for renaming species which are now placed in different genera. even if they were originally described in the same genus (cases "B" and "C" as well as "F," "G," and "H") (cf. (3) of paragraph 20 above).
- (3) It would enable all species to be known by the trivial names under which they were originally described except where such names were currently being used for older species in the same genus.
- (4) As in the case of Proposal (II) it would avoid any scope for the misuse of the Règles for the deliberate creation of secondary homonyms (cf. (5) of paragraph 20 above).
- (5) It avoids the necessity for taking account of the lumping of species or genera in popular or unscientific works (cf. (6) of paragraph 20 above).
- 23. The following arguments have been advanced against this proposal:—
- (1) The possibility of one species being known by different trivial names according to the subjective taxonomic views of the individual worker concerned would apply under this proposal to primary as well as to secondary homonyms (cf. (2) of paragraph 21 above).
- (2) The subsequent resurrection of names formerly rejected as primary and secondary homonyms when the condition of homonymy no longer exists involves unnecessary changes in trivial names (not only in cases "G" and "H" as under Proposal (II) but also in case "B" (cf. (3) of paragraph 21 above)).
- (3) Primary homonyms, unlike secondary homonyms, are independent of the taxonomic views of subsequent authors. The original combination is the only permanent and objectively ascertainable reference by which a specific name can always be identified, and therefore confusion will always arise if primary homonyms are not permanently replaced, irrespective of any subjective taxonomic revisions to which the species may be subjected subsequent to its original description.

PROPOSAL (IV). The permanent replacement of both primary and secondary homonyms, but only if discovered when the condition of homonymy exists.

- 24. The following arguments have been advanced in favour of this proposal:—
 - (1) If we are interested only in homonymy existing at the present time, it is logical to replace both primary and secondary homonyms only if discovered when the condition of homonymy still exists (cf. (1) of paragraph 22 above).

- (2) As contrasted with Proposal (I) it would avoid the necessity of renaming species, the names of which have once been primary or secondary homonyms where they are no longer referred to the same genus as another species with the same trivial name (cf. (3) of paragraph 20 and (2) of paragraph 22 above).
- (3) As contrasted with Proposal (III) it would avoid the possibility of one species being known by different trivial names according to the subjective taxonomic views of the individual worker concerned (cf. (2) of paragraph 21 and (2) of paragraph 23).
- (4) As contrasted with Proposal (III) it would avoid unnecessary changes in names due to the resurrection of names formerly rejected as primary or secondary homonyms when the condition of homonymy ceases to exist (cf. (2) of paragraph 23).
- 25. The following arguments have been advanced against this proposal :---
- (1) Like Proposal (III) it ignores the objective nature of primary homonyms, and fails to remedy the confusion arising from two species being originally described by the same combination of generic and specific trivial name (cf. (3) of paragraph 23 above).
- (2) Like Proposal (I) it is open to abuse in the form of the deliberate creation of secondary homonyms by irresponsible or malicious writers (cf. (2) of paragraph 19 above).
 - PROPOSAL (V). The permanent replacement of primary homonyms whenever discovered, combined with the permanent replacement of secondary homonyms only if discovered when the condition of homonomy exists.
- 26. The following arguments have been advanced in favour of this proposal:—
 - (1) Like Proposals (I) and (IV), it avoids the possibility of one species being known by different trivial names according to the subjective taxonomic views of the individual worker concerned (cf. (3) of paragraph 18 and (3) of paragraph 24 above).
 - (2) Like Proposal (II), it avoids the necessity of renaming species which were once secondary homonyms but where the secondary homonymy has ceased to exist (cf. (3) of paragraph 20 above).
 - (3) As contrasted with Proposal (II), it avoids the unnecessary change of name of a species whose trivial name has been replaced as a secondary homonym, once the condition of secondary homonymy has ceased to exist (cf. (3) of paragraph 21).
 - (4) It recognises the objective nature of primary homonyms and removes the confusion arising from the fact that two distinct species were originally described under the same specific name (binominal combination) (cf. (3) of paragraph 23 and (1) of paragraph 25 above).

- 27. The following arguments have been advanced against this proposal:—
- Like Proposals (I) and (IV), it is open to abuse in the form of the deliberate creation of secondary homonyms by irresponsible or malicious writers (cf. (2) of paragraph 19 and (2) of paragraph 25 above).
- (2) As contrasted with Proposal (IV) the replacement of a trivial name on account of primary homonymy when the condition of homonymy no longer exists involves an unnecessary change of name (cf. (2) of paragraph 24, but cf. on the other hand also (1) of paragraph 25).

VI. Conclusions and recommendations

- 28. It is apparent from the above survey that no solution is ideal: every solution has some advantages and some disadvantages. Our object must be to select the one which has the least important disadvantages, or disadvantages which are most easily susceptible of remedy by other means. After careful weighing up of the pros and cons of the various proposals considered above, I am left with the impression that the balance of advantage lies with the last proposal (Proposal (V)) discussed. One disadvantage of this proposal (which it shares with Proposals (I) and (IV)) could probably be remedied, as suggested by the late Secretary Stiles, by the suppression of irresponsible writings of the kind in question by the International Commission under its plenary powers to suspend the Règles. The second disadvantage cited, that of unnecessary name changes, is not of very great practical importance, since the great majority of primary homonyms has already been replaced. Moreover, this disadvantage seems to be far more than outweighed by advantage (4) with which it is rigidly correlated, and by the fact that the permanent replacement of primary homonyms has been the almost universal practice of the past.
- 29. The selection of Proposal (V) as the solution to be recommended, while providing a valuable framework for a proposed amendment to the *Règles*, would by no means clear up all the gaps and ambiguities in the existing provisions of Articles 35 and 36, which have been listed in paragraph 9 above. The following paragraphs contain suggestions for providing answers to the remainder of the queries contained in that list.
 - (a) Suggested restriction of the term "nom spécifique" (specific name) and the adoption of the term "nom spécifique trivial" (specific trivial name).
- 30. It is recommended that the term "nom spécifique triviale" (specific trivial name) should be used not only in Articles 35 and 36 but throughout the Règles for the Linnean concept of the nomen trivial of a species, and that the term "nom spécifique" (specific name) should be reserved to denote the nomen specificum, i.e. the binominal combination, which constitutes the specific name. This proposal would remove the ambiguity indicated in question (1) of paragraph 9.
 - (b) Definition of, and distinction between. primary and secondary homonyms.
- 31. A clear definition of primary and secondary homonyms along the lines indicated in paragraph 15 above would remove all such ambiguities as those referred to in questions (2), (3), (4), (5) and (6) of paragraph 9.

(c) Procedure for replacement of homonyms.

- 32. Primary homonyms.—The existence of primary homonymy (as in cases "A," "B" and "C") is an objective fact, and it is necessary whenever such a situation is discovered to rename the species which bears the later published of the two identical trivial names. Even if a generally recognised subjective synonym exists, the nominal species should be given a new trivial name, since this is the only name which adheres to it objectively, irrespective of the taxonomic views of subsequent workers (cf. question (9) in paragraph 9). The new name can then be sunk as a synonym if desired, but will always be available for the nominal species should the synonymy at any time cease to be recognised. The only circumstance in which the renaming of a primary homonym is neither necessary nor desirable is when (as would only very rarely happen) the nominal species which bears the later published of the two identical trivial names has an objective synonym, that is to say when there is a second nominal species based upon the same type specimen.
- 33. It is important that the new trivial name of a species whose name has been rejected as a primary homonym should be well publicised, since it is henceforth to become the permanent name of the nominal species concerned. To this end I would like to propose that in such cases, as also in the case of the naming of a new species, a copy of the publication in which the new name first appears should be forwarded to the Zoological Record, so that the new name may be recorded in the systematic section of the next annual volume of that work. I should like also to suggest that an appropriate "Recommandation" along these lines should be inserted in Article 25.
- 34. Secondary homonyms.—Secondary homonyms are necessarily subjective in origin, depending on the subjective taxonomic views of individual workers. Our aim must be to avoid the confusion to which secondary homonyms may give rise, but at the same time somehow to translate their subjective origin into objective provisions which are simple to apply and are capable of being carried out in a uniform fashion by any worker irrespective of his individual taxonomic standpoint. The provisions must permit no individual discretion and must call for no laborious researches on the part of zoologists in general and must be such as to create the maximum of uniformity and stability in nomenclature. For this purpose the onus of establishing the existence of secondary homonymy should be laid squarely on those from whose taxonomic judgment such homonymy arises. It should be the duty of any reviser who, by transferring a species from one genus to another, or by uniting two or more genera, creates a secondary homonym:—
 - (1) expressly to cite the two species concerned in the same genus;
 - (2) expressly to sink the later published of the two trivial names as a homonym;
 - (3) to give a new name to the species, the trivial name of which has been rejected.

He should further be recommended (cf. paragraph 33 above) to forward to the Zoological Record a copy of the publication in which this threefold procedure has been applied, in order that an appropriate entry may be inserted in the next volume of that work.

- 35. No name should be regarded as invalidated as a secondary homonym unless the three above-mentioned steps have been taken, but once they have been taken, the new name should adhere permanently to the nominal species concerned, unless, after further taxonomic revision, it is once more rejected (by a similar procedure) as a secondary homonym.
- 36. This procedure would establish a uniform system of nomenclature and avoid the need for time-wasting researches by systematic workers into unscientific and popular books (cf. (3) of paragraph 19 above), though it could not prevent the deliberate creation of secondary homonyms by an irresponsible or malicious writer (cf. (2) of paragraph 19 above). (The latter danger could be met only by a judicious use by the International Commission of its plenary powers to suspend the *Règles* for the purpose of avoiding confusion and promoting uniformity.) Provisions along these lines would remove the ambiguities indicated in questions (7) and (8) in paragraph 9, since no species not definitely cited as a secondary homonym would need renaming, and only those names expressly sunk and replaced would be regarded as having been definitely rejected and therefore as being excluded from all further use for the species concerned.

(d) Subgeneric names in relation to specific homonymy.

37. The kind of questions that may arise in relation to specific homonymy in regard to subgeneric names may be illustrated by the following examples: (1) Is a specific name to be rejected as a homonym where two species with identical trivial names are described or placed in the same genus although referred to different subgenera? My own view (and the one which accords with current practice) is that any two specific names consisting of identical trivial and generic names are homonyms (and the later published of the identical trivial names must be replaced) irrespective of whether they are placed in the same subgenus or not: (2) Is a specific name to be rejected as a homonym where two species with identical trivial names are described as belonging to the same subgenus but that subgenus is referred by the same author at different times or by different authors to different genera? My own view is that in such a case the two trivial names are not homonyms and therefore that the later published of these names should not be replaced: (3) Is a specific name to be rejected as a homonym where the two species with identical trivial names are described or placed in subgenera which, through the accident of homonymy, have the same subgeneric names, although these subgenera are referred to different genera? My own view is that, while in such a case the later published subgeneric name must be replaced as a homonym (under Article 34 of the Règles read in conjunction with Article 6), there is no need to replace the more recent trivial name so long as the species concerned are referred to different genera. If these views are accepted, there is no need to allude to subgeneric names in Articles 35 and 36. It will, however, be essential to insert a qualification in Article 6 to indicate that subgeneric names are not to be regarded as co-ordinate with generic names for the purposes of Articles 35 and 36 in respect of specific homonymy. (cf. question (10) in paragraph 9).

- (e) Treatment of subspecific names in relation to specific and subspecific homonymy.
- 38. Subject to the exception mentioned in paragraph 39 below, the provision of Article 11 that specific and subspecific names are co-ordinate, taken in conjunction with Articles 35 and 36, is generally taken to mean that, as in the case of two specific names, any two subspecific names or pairs of subspecific and specific names constitute homonyms, if they consist of combinations containing the same generic and trivial names. This being the accepted, and in my view essential, interpretation of Articles 35 and 36, when read in conjunction with Article 11, it will be necessary to make clear in the revised texts of Articles 35 and 36 that subspecific trivial names are to be subject to the same rules as specific trivial names, in the determination of specific and subspecific homonymy (cf. question (11) in paragraph 9).
 - (f) Exemption for the trivial name of a nominotypical subspecies.
- 39. Although the *Règles* provide (Article 9) that the typical subgenus of a genus having two or more subgenera is to have, as its name, the same name as the genus itself, there is no corresponding provision in regard to the trivial name of the nominotypical subspecies of a species having two or more subspecies. I am proposing elsewhere the addition to the *Règles* of an Article to remove this anomaly, but I think it necessary to allude to the subject here because it is essential that the revised texts of Articles 35 and 36 shall secure that the trivial name of a nominotypical subspecies shall not be liable to rejection and therefore to replacement on the ground that it is a homonym of the specific trivial name of the species concerned (cf. question (11) in paragraph 9).
 - (g) Deletion of the expression "of the same origin and meaning" in paragraph (3) of Article 35.
- 40. It is desirable that in their revised form the Articles of the Règles dealing with specific homonymy should retain the substance of the provisions which now appear in paragraph (3) of Article 35 and are concerned with the relationship of certain pairs of trivial names which differ from one another only by small differences of spelling. The qualification in that paragraph which limits its application to names which are "of the same origin and meaning" should however be deleted, for this limitation makes this paragraph incapable of being applied in the majority of cases falling in the class specified in that paragraph as "class (a)" owing to the impossibility of determining in many instances whether any given pair of similar names are of the same origin and meaning, while as regards names falling in the remaining classes this provision is superfluous, for names falling in these classes are by definition of the same origin and meaning. It is suggested that the opening words of this provision should be redrafted simply to provide that, where any two specific or subspecific trivial names differ from one another only by reason of the differences of spelling specified in that paragraph, those names are to be treated as being identical with one another.

See Point (15) in Commission Paper I.C.(48)12.

SUMMARY OF PRINCIPAL CONCLUSIONS AND RECOMMENDATIONS

- 41. I summarise my principal conclusions and recommendations as follows:—
 - (1) The present provisions in regard to specific homonyms, which are embodied in Articles 35 and 36 of the Règles, are so obscurely worded and are marked by so many and such serious omissions that it is manifest that order will never be introduced into this subject until these Articles have been completely redrafted in such a way as both to cover the whole subject and to deal expressly with each of the numerous combinations of circumstances in which specific (and subspecific) homonyms can arise.
 - (2) There are at present wide divergences of opinion both as to the meaning of the existing provisions and also as to the nature of the provisions which it is desirable that the *Règles* should prescribe.
 - (3) Before considering the form which the revised version of these Articles should take, we must decide which of the main solutions which have been suggested is to be adopted. None of these solutions is ideal, each having some advantages and some disadvantages. We must therefore seek to determine which of these solutions has the fewest serious disadvantages or disadvantages which are most readily susceptible to treatment by other means.
 - (4) After carefully weighing the relative advantages and disadvantages of each of the five principal types of solution which have been suggested (particulars of which are given in paragraphs 18-27 of the present paper), I have formed the conclusion that the solution which on balance offers the greatest advantages and the fewest and least serious disadvantages and which corresponds the most closely with present general practice is one which would embody the features specified in (5)-(15) below. I accordingly recommend this solution to the favourable consideration of the International Commission.
 - (5) In order to provide the necessary degree of clarity in the revised version of the *Règles*, the expressions "specific trivial name," "primary homonym" and "secondary homonym" should be introduced and definitions should be given of the meaning to be attached to these expressions and also to the expression "specific name."
 - (6) The expression "specific trivial name" should be defined as meaning the second term of the binominal combination which forms the name of a species, i.e. it should have the same meaning as the Linnean expression "nomen triviale," and the expression "specific name" should be defined as meaning the binominal combination of generic and trivial names which together constitute the name of a species, i.e. this expression should have the same meaning as the Linnean expression "nomen specificum."
 - (7) The expressions "primary homonym" and "secondary homonym" should be defined as follows:—

Primary homonym: A specific name is a primary homonym of another specific name when at the time of its original publication it consisted of the same binominal combination of generic and trivial names as that which constituted the specific name of some other species at the time of its original publication.

Secondary homonym: The trivial name of a species (i.e. its specific trivial name) is a secondary homonym of the specific trivial name of another species, where the two species having identical specific trivial names, although originally described in different genera, are subsequently placed, that is to say actually cited, in the same genus as the result either (1) of the union of two or more genera or (2) of the transfer of either (or both) of the species concerned from the genus in which it was (or they were) originally described to some other genus (or genera).

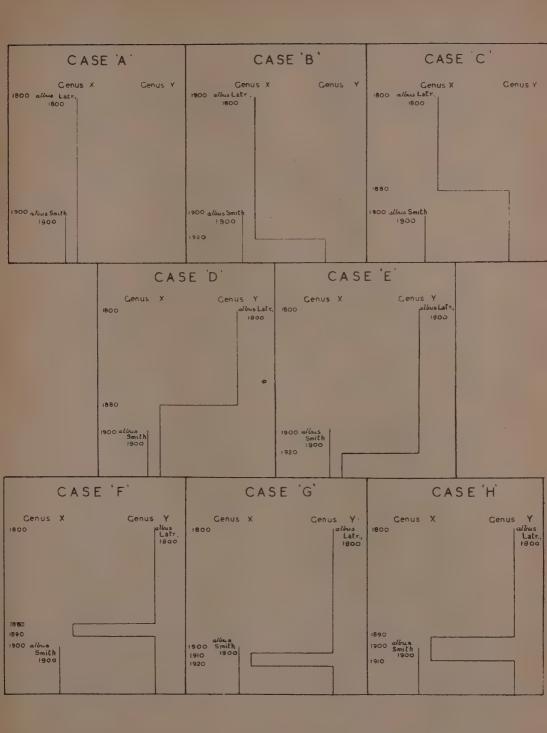
- (8) Whenever the specific name originally bestowed upon any species is found to be a primary homonym of the specific name originally bestowed upon another species, the later published of the two names is to be permanently rejected and is to be replaced by a new specific name comprising a different specific trivial name.
- Whenever the specific trivial names of two species become secondary homonyms of one another, the later published of the two specific trivial names is to be permanently rejected and replaced by a new specific trivial name, but where two species having identical specific trivial names were at one time but are no longer secondary homonyms by reason of being placed in the same genus and where in such a case the later published of the two specific trivial names was not rejected and replaced during the period in which it and the other specific trivial name were secondary homonyms of one another, that name shall not subsequently be rejected and replaced unless on a subsequent revision the two species are again re-united in a single genus and their respective specific trivial names once more become secondary homonyms of one another.
- (10)Subgeneric names should not be treated as co-ordinate with generic names for purposes of specific (and subspecific) homonymy, and Article 6 should be qualified accordingly.
- Subspecific trivial names should be treated as co-ordinate with specific trivial names for purposes of specific and subspecific homonymy, except to the extent specified in (12) below. The rules applying to cases where a pair of species having identical specific trivial names are either originally described or subsequently united in the same genus should, therefore, apply also to cases where of two species so described or united :-

- (a) the specific trivial name of one species is identical with the subspecific trivial name of a subspecies of the other, or
- (b) the subspecific trivial name of a subspecies of one species is identical with the subspecific trivial name of a subspecies of the other species.
- (12) The subspecific trivial name of the nominotypical subspecies of a species having two or more subspecies is not to be rejected on the ground that it is a homonym of the specific trivial name of that species.
- (13) In order to minimise the risk either of the publication of specific or subspecific names which are primary homonyms of previously published specific or subspecific names or of the rejection and renaming of secondary homonyms which have already been rejected and renamed. it is most important that the publication of every new specific or subspecific name should be centrally recorded as soon as possible after publication. It is accordingly suggested that a "Recommandation" should be added to Article 25 urging every zoologist who publishes a new specific or subspecific name either for a new species or subspecies or in substitution for a specific or subspecific name rejected as a homonym to send a copy of the publication containing that name to the Editor of the Zoological Record, c o Zoological Society of London. Regent's Park, London, N.W.1, England, in order that the name in question may be recorded in the systematic portion of the next annual volume of that work.
- (14) It is suggested that, in order to minimise the risk of the proposed revised rules in regard to specific homonymy being misused by irresponsible or malicious persons with the deliberate purpose of creating secondary homonyms or providing opportunities for publishing new names, the International Commission on Zoological Nomenclature should place on record their intention to use their plenary powers to suppress any work in which, in their opinion, the provisions of the Règles have been deliberately abused in this way.
- (15) In the provision in paragraph (3) of Article 35 that trivial names which differ from one another only by the slight differences of spelling there specified are to be treated as being identical with one another, the qualification that, as a condition to being so treated, such names must be of the same origin and meaning, should be deleted. It is suggested that the opening words of this paragraph should be redrafted simply to provide that, where any two specific or subspecific trivial names differ from one another only by reason of the differences in spelling specified in that paragraph, those names are to be treated as being identical with one another.

FRANCIS HEMMING.

Secretary to the International Commission on Zoological Nomenclature.

Secretariat of the Commission, London, England. 29th June, 1948.





INTERNATIONAL COMMISSION on ZOOLOGICAL NOMENCLATURE

PAPER I.C.(48)9

ON THE STATUS OF NAMES OF FORMS OF LESS THAN SPECIFIC RANK

Report by the Secretary to the Commission

I. Introductory

At its Session held in connection with the Twelfth International Congress of Zoology at Lisbon in 1935, the International Commission on Zoological Nomenclature had under consideration the following resolution relating to the status of varietal names, adopted (by a majority) by Section VIII, and subsequently by a Plenary Session, of the Fifth International Congress of Entomology at its meeting in Paris in 1932:—

- "La Priorité d'un nom donné à une forme quelconque d'insectes doit être conservée dans tous les cas.
- 2. The International Commission agreed (Lisbon Session, Fourth Meeting,
 - (a) that in the time available it would not be possible at Lisbon to deal adequately with the
 - problems involved in this resolution; that the Secretary should confer with specialists in representative branches of the Animal Kingdom regarding the status to be accorded to names proposed as names for forms of less than subspecific status, with a view to the formulation of an Opinion appropriate to each of the various circumstances in which this problem arises.
- 3. In accordance with the above Conclusion, I have been in correspondence or have held personal consultations with a large number of specialists interested in this problem in different parts of the world and in connection with different groups of the Animal Kingdom. I herewith present a Report on the conclusions which I have reached. In accordance with the principles laid down in Paper I.C.(48)6, however, I consider that the proposals here put forward, if adopted, should be incorporated in the Règles themselves rather than, as contemplated at Lisbon, being promulgated in the form of an Opinion.
- 4. The Règles recognise the existence of one class only of taxonomic unit below that of species, namely the "sous-espèce" (subspecies). The nomenclature of subspecies is subject under the Règles to provisions similar to those governing the nomenclature of species. Article 11 provides that subspecific names and specific names are co-ordinate, and Article 12 that a specific name becomes a subspecific name when a species is degraded to the status of subspecies, and vice versa. Subspecific names are treated as exactly on a par with specific names in Article 25 (the Law of Priority) and Article 35 (the Law of Homonymy).

- 5. The problem with which the present Report is concerned arises from the fact that, as contrasted with the provisions of the Règles, zoologists in general recognise many different classes of infra-specific variations, ranging from those appearing in a single individual at the one end to those characteristic of whole populations at the other. While all zoologists recognise the existence of these different classes of variations, they differ in the extent to which they think it desirable to give scientific names to the units concerned. On the one hand are those who hold that no varieties within a population should be named, that they can be denoted, where necessary, by symbols or descriptions or technical designations. On the other hand are those who employ a polynomial nomenclature for the naming not only of subspecies (e.g. geographical races) but also of forms (seasonal, sexual, etc.), hybrids and even individual aberrations.
- 6. Since the $R\grave{e}gles$ themselves provide no definition of a subspecies it has remained a matter of doubt to which of the various infra-specific classes the provisions regarding the nomenclature of subspecies quoted in paragraph 4 above apply. At the one extreme is the view that names proposed for all categories of lower rank than that of species are available under the $R\grave{e}gles$ if properly proposed in Latin form and accompanied by an indication, definition or description. At the other extreme is the view that the expression "subspecies" as used in the $R\grave{e}gles$ corresponds to a definite concept, related to a population only, distinguished by constant heritable characteristics, and that properly proposed trinominal names have therefore availability under the $R\grave{e}gles$ only if clearly applied to whole populations (geographical, ecological, etc.) and not if applied to sections of populations or to individuals only.
- 7. The question at issue is a far-reaching one. It not only affects the availability of the names of all the varieties and forms of less than subspecific rank, but, in so far as an animal originally named as representing a form is sometimes found to represent a good subspecies (or even a species), it affects also the nomenclature of a considerable number of subspecies and species which will remain in doubt until a definite ruling has been given on the subject.
 - 8. Any satisfactory solution will clearly involve:
 - (1) a recognition in the *Règles* themselves of the existence of more than one infra-specific category;
 - (2) a clear and workable definition of the category or categories to be covered by the expression "sous-espèce" (subspecies), the nomenclature of which would be co-ordinate with that of species; and
 - (3) some provision regarding the nomenclatorial status, if any, of names given to taxonomic units of less than subspecific rank.

II. Proposed distinction in the "Règles" between the nomenclature of (a) subspecies and (b) infra-subspecific forms

- 9. Zoologists agree in recognising two distinct classes of taxonomic unit below that of species :--
 - (1) units based on constant variations characteristic of a whole population differentiated thereby from other populations (geographical, ecological, etc.) within the same species;

- (2) units based on variations occurring in individuals or groups, and not necessarily confined to a single population.
- 10. The terms applied by zoologists to these two classes of taxonomic unit below the rank of species have varied widely, some terms such as "variety" and "form" having been used indiscriminately for units in both categories. For the purpose of defining the status of names proposed for units in these two taxonomic categories respectively, it is suggested that the term "sous-espèce" (subspecies) should be restricted in the *Règles* to the first category of taxonomic unit below the rank of species (that based on constant variations within a whole population), while units of the second category (those based on variations occurring in individuals or groups, and not necessarily confined to a single population) should be classed collectively as "infra-subspecific forms."

III. Proposed nomenclatorial status of names given (a) to subspecies and (b) to infra-subspecific forms respectively.

- 11. It is generally agreed that names given to "subspecies," as restricted in paragraph 10 above, should, subject to such amendments as may be proposed for other reasons, be governed by the existing provisions of the Règles relating to subspecies, and that they should be treated as co-ordinate with names given to species.
- 12. Differences have arisen, both in current practice and in proposals advocated, only in regard to the status to be accorded to names given to units in the second of the two categories distinguished in paragraph 10 above, namely to the category of infra-subspecific forms. It is this question to which it is the main task of the present Report to suggest a solution.
- 13. The differences referred to above can to a considerable extent be traced back to differences in the zoological ends which the nomenclature of taxonomic units below the rank of species is required to serve. We have to recognise the existence of several distinct classes of zoologist, each with different, and to some extent mutually conflicting, interests:—
 - (1) There is first the systematist who is primarily interested in studying subspecies, species and higher categories, and who would prefer the scope of zoological nomenclature to be drawn no more widely than is necessary to include the categories with which he himself is concerned. He does not wish to take cognizance or keep records of all names proposed for aberrational or other categories of infra-subspecific rank (i) on the chance that such a name should later be found to be the oldest name applied to a representative of a hitherto unnamed (or invalidly named) subspecies or species, or (ii) in order to ensure that any new name which he may select for a species or subspecies shall not be invalidated as a homonym of an earlier published name proposed for some unit of infra-subspecific rank.
 - (2) Secondly, there is the considerable number of zoologists, especially in certain groups (e.g. in some Orders in the Class Insecta) who are particularly interested in the study of forms (sexual, seasonal, dimorphic) and aberrations, and seek the protection of the *Règles* to stabilise the

- nomenclature of these categories. If these names were to be declared to be outside the scope of zoological nomenclature altogether and hence of the *Règles*, there would be nothing to ensure that the same form was always denoted by the same name (Law of Priority) or that the same name was always used to denote the same form (Law of Homonymy). Intercommunication and mutual understanding in this branch of zoology would be seriously hampered.
- (3) Thirdly, there are zoologists who are especially interested in the study of forms based on parallel variations occurring in a number of allied species, and who wish to use the same names or terms to denote the forms in question in whichever species or subspecies they occur. Such a procedure would be ruled out if the Law of Homonymy (Article 35 of the Règles) were to be applied to all names of infral subspecific rank. An example of this situation is provided by the names (obsoleta, arcuata, striata, etc.) proposed by the late Professor L. Courvoisier for forms showing particular aberrational characters found in each of a large number of species in the Family LYCAENIDAE (Class Insecta, Order Lepidoptera).
- 14. Consideration of these conflicting requirements suggests a possible compromise which would safeguard the primary interests of each group without seriously interfering with the essential needs of the others. The interests of the first group require only that the nomenclature of subspecies and higher ranks shall be entirely independent of, and unaffected by, names given to units of infrasubspecific rank. The interests of the second group require above all the protection of the Laws of Priority and Homonymy as applied to the nomenclature of infra-subspecific categories. If therefore the basic provisions of the Règles (in particular the Laws of Priority and Homonymy) could be made to apply independently in the realm of subspecies and species on the one hand, and in the realm of infra-subspecific forms on the other, then this should be perfectly satisfactory to the workers interested in each of these realms. The situation would be not dissimilar to that already obtaining as between zoological and botanical nomenclature.
- 15. The realm of infra-subspecific categories on the one hand and the realm of subspecies and species on the other are not however completely independent of one another. Animals originally named as representing subspecies or species are sometimes reclassified later as representing forms or aberrations; and, on the other hand, animals originally named as representing forms or aberrations may later turn out to be representatives of good subspecies or even species. What is to be the status of names originally proposed in the one realm when the animal concerned is elevated (or degraded) to represent a unit in the other? It is obvious that the concern of the first group of zoologists (those interested in subspecies and higher categories only) not to be troubled with names given to units of infrasubspecific rank requires that any unit of infra-subspecific rank promoted to the rank of subspecies or above must be given a new name dating, and with rights of priority (in the "new realm") only as from the time when the animal concerned was first elevated to represent a subspecies or species. If it is decided to retain the original form name as a subspecific or specific trivial name (assuming it is not a homonym in the "new realm") the name will need to rank for

priority only as from the date on which the elevation to the status of subspecies or species took place, and be attributed to the author responsible for this elevation.

- 16. The same considerations do not apply in the case where an animal originally named as representing a subspecies or species is treated by a later author as representing only a form or aberration. For whereas some zoologists are interested only in subspecies and species but not in lower forms, it need not be assumed that those zoologists who specialise in the study of forms, aberrations, etc., are uninterested in subspecies and species. It may be assumed that they will wish to keep a record of names proposed for species and subspecies in any case. There would appear therefore to be no need for animals originally named as representing subspecies or species to be renamed if they are later found to represent only forms or aberrations, assuming, that is, that the old name does not turn out to be a homonym in the realm of infrasubspecific forms.
- 17. The above proposals would appear to meet the requirements of the first and second classes of zoologists distinguished in paragraph 13 above. There remains the problem of meeting the requirements of the third class. those interested in the study of parallel infra-subspecific variations occurring in a number of allied species. Some exception to the operation of the Laws of Priority and Homonymy in the realm of infra-subspecific forms seems to be called for. Such a suspension of the Règles in the interests of promoting uniformity and avoiding confusion could be secured by the use by the International Commission of its plenary powers. The procedure would be for the Commission, at the request of specialists in the group concerned, where it was satisfied that greater uniformity than confusion would follow from the use of standard terminology for certain infra-subspecific forms occurring in two or more allied species, to prescribe, by *Opinion*, the terms to be used for such forms. These terms (or technical designations) would have absolute priority both over any names which may previously have been given to the forms in question or which thereafter may be so given and over any other use of the prescribed terms as names for other forms in the same genus.

IV. Method of application of the present proposals

- 18. In order to apply the proposals outlined in the foregoing section of this Report, it would be necessary to establish a criterion for determining whether any name given to a form of less than specific rank is applicable (a) to a subspecies or (b) to an infra-subspecific form.
- 19. The first requirement for such a criterion is that it should be objective. If the Règles are to promote uniformity and stability in nomenclature, it is essential that their provisions should leave as little room as possible for any subjective element in the interpretation of the way they are to be applied. In this particular case the nomenclatorial status of names given to units of less than specific rank must be independent of the taxonomic judgment of individual zoologists as to the status of the taxonomic unit represented by the animal to which the name in question was given. The only objective criterion is that of the terms in which the name was originally published.

- 20. The second essential requirement of the criterion to be used in determining into which category any name given to a unit of less than specific rank falls is that it shall be unambiguous without being unduly narrow or "ritualistic." It must not exclude from subspecific status a name clearly intended for a subspecies solely on the ground that that name was not proposed in accordance with a certain fixed, narrowly defined procedure. At the same time the criterion to be adopted must provide a clear and unambiguous guide as to the category to which any given name of less than specific status belongs.
 - 21. Two points arise from the above considerations:—
 - (1) A more rigorous standard for the attainment of subspecific status can properly be required from names published after some specified future date than can be applied to names published in the past before incorporation in the *Règles* of the distinction suggested in the present proposals:
 - (2) In the interest of maximum clarity, it is desirable to lay down an ideal procedure to be adopted in proposing new names for subspecies and infra-subspecific forms (or for re-naming organisms whose taxonomic status is being raised from that of an infra-subspecific form to that of subspecies), but this procedure must not be adopted as a minimum standard, failure to attain which shall disqualify a name from acquiring subspecific status.

V. Criteria for determining subspecific status for names published (a) before and (b) after the suggested prescribed date

- 22. For the future it will be possible to lay down that no name published as the name of a form of less than specific status, where it is not perfectly clear from the terms of its original publication that it is intended for a subspecies, should be treated as having subspecific rank. All other names given to units of less than specific status, whether clearly proposed for infra-subspecific forms or not, would then have status only as infra-specific names.
- 23. Substantial notice would be necessary before bringing such a provision into force, so as to enable workers to become familiar with its implications and to make the necessary adjustments in their card indexes and their current manuscripts. I consider that it would not be practicable to bring such a provision into force before the end of 1950, and suggest therefore making it apply only to names published after midnight G.M.T. of 31st December of that year.
- 24. In the case of names of less than specific rank published in the past and before 1st January 1951, a less rigorous standard must be admitted for the attainment of subspecific status. For names published in this period 1 suggest that all those should be treated as having subspecific status where it is not perfectly clear from the terms of their original publication that they were intended for infra-subspecific forms. This would include all names of less than specific status clearly stated to be intended for subspecies (as in the case of names published after 31st December 1950) and in addition all those not clearly specified to be intended for some infra-subspecific form.

VI. Suggested "Recommandations" as to the method of citing new names proposed (a) for subspecies and (b) for infra-subspecific forms

25. Under the present proposals it would be highly desirable that authors proposing new names for subspecies or for infra-subspecific forms should make it absolutely clear which it is they are doing, by their method of citing the new name in question. In the case of a new name proposed for a subspecies this could be effected by (a) citing the new name in a trinominal combination consisting of (1) the generic name, (2) the specific trivial name and (3) the subspecific trivial name, and (b) adding at the end the expression "ssp.n." to indicate both that the name is a new name and that it is intended to apply to a subspecies. Where an author is proposing a new name for an infra-subspecific form, this should be clearly indicated by (a) inserting a comma followed by an expression indicating the status of the infra-subspecific form (e.g. an expression such as "form. vern.", "\varphi-form," or "ab.") immediately after the subspecific or specific trivial name and before the name of the infra-subspecific form, and (b) adding at the end an expression such as "form. nov." or "ab. nov." to indicate both that it is a new name and to which category of infra-subspecific form the name is intended to apply.

26. While it would be extremely desirable that all authors should follow the above procedure in proposing new names for units of less than specific rank, it would clearly be a gross and inexcusable case of "ritualism" if a new name clearly proposed for a subspecies were to be disqualified from subspecific status because the above procedure had not been exactly or fully followed. The course which I suggest therefore in this as in other cases where it is desired to indicate an optimum procedure without establishing it as a minimum requirement, is that the optimum procedure should be inserted in the Règles in the form of a Recommandation appended to the relevant provision, while only the minimum requirement (i.e. that needed to secure availability under the Règles) should be included in the operative provision of the Règles.

27. It is accordingly suggested that the actual requirements for the acquisition of subspecific status for a name bestowed on a form of less than specific rank should be drawn broadly, in the terms indicated in paragraph 22 above, but that this provision should be accompanied by a *Recommandation* strongly urging authors proposing new names for forms both of subspecific and of infra-subspecific rank, to do so in terms such as those specified in paragraph 25 above.

VII. The general effects of the present proposal

28. I have now described in broad outline the scheme which I recommend for dealing with the problem of names for taxonomic units of less than specific rank, and at the end of the present Report I set out those proposals in somewhat greater detail. Before I do so, it will, I think, be useful to pause for a moment and, after looking at the scheme as a whole, to consider to what extent it meets the problem with which we are faced.

- 29. First, whatever view may be taken on this or that aspect of the present scheme, it must, I think, be admitted that it offers a clear-cut and easily operated method for dealing with the problem of names for taxonomic units of less than specific rank. It has therefore the merit that it provides a means of putting an end to the state of chaos into which we have drifted as a result of allowing nearly 50 years to go by without making an attempt to insert provisions in the Règles to deal with this subject. All of us who are workers in systematic zoology are familiar with the difficulties which constantly arise from the complete lack of guidance on this subject in the Règles. The first need of every such worker is that an end should be put to the present state of uncertainty and that some workable scheme should be clearly prescribed in the Règles. This requirement will, I believe, be met by the adoption of the scheme now put forward.
- 30. No amount of study or discussion could serve to produce a scheme which would be warmly welcomed by every class of zoologist, for the question of whether names should be given to minority elements below the subspecific level is one on which complete agreement can hardly be expected. From the standpoint of some zoologists names for such forms are essential tools for their work, while for others the needs of science would be met just as well and indeed better by the adoption of some terminology for these forms which did not involve the giving of trivial names. However much zoologists may disagree on this or other questions, all will however accept the view that in pursuance of their general unity of purpose they should so conduct their affairs as to enable every legitimate interest to be met. To this end a certain amount of give and take and mutual forbearance is essential.
- 31. It is with this object in view that the present scheme has been constructed, for it provides on the one hand a means of validating and regulating the status of the countless thousands of names applied to forms of less than subspecific rank, while on the other hand it relieves those workers who are not concerned with the study of forms below the subspecies level of the immense burden involved in recording and cataloguing names given to such forms. The corner-stone of the whole scheme is the provision that the nomenclature of subspecies and species on the one hand and that of forms of infra-subspecific rank on the other are to be made independent of one another, though each within its own field is to be subject to the same laws. I regard this provision as of cardinal importance, for it alone provides a means of meeting the needs and wishes of each of the two main classes of zoologists concerned, without inflicting damage or serious hardship upon either.
- 32. I recognise that some sacrifice is entailed for each class: those zoologists who attach importance to the naming of infra-subspecific forms will have to forego the right of seeing the names bestowed on such forms being elevated to subspecific or specific rank with their original date of publication and their original authorship. On the other hand, those zoologists who are not concerned with the study of forms of infra-subspecific rank will need to re-examine their catalogues for the purpose of identifying those species and subspecies which are to-day known by names which were originally published as names of infra-subspecific forms and which may have to be replaced if some name now



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BULLETIN OF ZOOLOGICAL NOMENCLATURE

Notice to subscribers regarding the arrangements made for the completion of volume 1 and for the publication of volumes 2, 3, 4 and 5

The following arrangements have been made for completing volume 1 of the *Bulletin of Zoological Nomenclature* and for the publication of volumes 2, 3, 4 and 5:—

- Volume 1: A concluding Part (Part 12), containing, inter alia, the Title Page, Table of Contents, and alphabetical subject index, will be published shortly.
- Volume 2: This volume, like Volume 1, will be devoted to the publication of applications in regard to nomenclatorial problems submitted by specialists to the International Commission on Zoological Nomenclature for decision. Publication will commence at an early date.
- Volume 3: This volume will be devoted to the publication of the memoranda, reports and other documents considered by the International Commission on Zoological Nomenclature and by the Section on Nomenclature of the Thirteenth International Congress of Zoology at their meetings held in Paris in July 1948.
- Volume 4: This volume will be devoted to the publication of the Official Record of Proceedings of the International Commission on Zoological Nomenclature at its Session held in Paris in July 1948. It is expected that publication of this volume will commence within the next few weeks.
- Volume 5: At the request of the Bureau of the Thirteenth International Congress of Zoology, this volume will be devoted to the publication of the Official Record of Proceedings of the Section on Nomenclature of the Thirteenth International Congress of Zoology, Paris, July 1948, together with the Reports submitted to the Congress by the International Commission on Zoological Nomenclature and the Section on Nomenclature.

INQUIRIES

All inquiries regarding publications should be addressed to the International Trust for Zoological Nomenclature, and all inquiries regarding the scientific work of the Commission to the Secretary to the Commission at the following addresses:—

International Trust for Zoological Nomenclature: 41, Queen's Gate, London, S.W.7, England.

International Commission on Zoological Nomenclature: Secretariat of the Commission, 28 Park Village East, Regent's Park, London, N.W.1, England.